



Parts & Service
Operators

SWEEP STAR P48HE

Model 71-700-B High Dump Engine Drive

Serial#: P48HE - 7961

JUNE 2010

Product Support:

Hwy 55 & Poplar Ave; Cameron WI 54822

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Accessories

Reference

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

Read this manual and all other manuals pertaining to the Sweep Star P48 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 Sweep Star P48 is located on the front cross member of the frame next to the cylinder arm.

For easy access record your Serial and Model numbers here.

SMITHCO		DATE OF MFG.
WAYNE, PENNSYLVANIA 19087 USA 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. 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 **SMITHCO** only. Do not modify any function or part.
16. Avoid sharp turns. Watch the tires of the tractor while turning to make sure they do not contact the tongue of the Sweep Star P48.
17. Shut down power source before attempting to unclog any part of the machine.
18. If reel deck begins 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.

SPECIFICATIONS FOR SWEEP STAR P48

WEIGHTS AND DIMENSIONS

Length	150in (381 cm)
Width	86 in 218 cm)
Height	59 in (150 cm)
Weight	1100 lbs (500 kg)

SOUND LEVEL

At ear level	72 dBA
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ENGINE

Make	Briggs & Stratton
Model#	138437
Type/Spec	0284-E1
Horsepower	7.5 Hp (5.5 kW)
Fuel	Unleaded 87 Octane Minimum
Cooling System	Air Cooled
Lubrication System	Full Pressure
Alternator	15 Amp

TIRES & WHEELS Two 24 - 13 x 12 (18 psi (1.3 bar)) Soft-TracTurf Tires

BATTERY (optional) U-1 300 Amp Battery (not included)

FLUID CAPACITY

Crankcase Oil	See Engine Manual
Fuel	See Engine Manual
Hydraulic Fluid	12.9 quart (1.7 liter)

TOW VEHICLE

Minimum drawbar power of 20 HP (15 kW)
Heavy Duty Vehicle with 4 wheel brakes

ACCESSORIES

71-702	5 th Wheel Hitch Assembly
71-703	Standard Hitch Assembly

SETUP

The Sweep Star P48 arrives from **SMITHCO** with some setup required.

1. The tongue and wheel will need to be installed.
2. You will need a tow vehicle to move the Sweep Star P48. The Sweep Star P48 has a Clevis Hitch that will need a $\frac{3}{4}$ diameter by 4" pin with some type of lock.
3. Remove tires from pallet. Tires are banded so take caution when cutting bands. Place tires on axle.
4. Remove tongue from pallet. Install the tongue and place jack in upright position.
5. Crank the jack up so you can hook to tow vehicle.
6. Check the tire pressure. 18 psi (1.3 bar).
7. Check hydraulic fluid level in tank on tow vehicle.
8. Machine should be greased before starting. See Maintenance part of manual.
9. Read operating instructions before starting.

OPERATION

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

TOW VEHICLE

You will need a heavy duty vehicle with 4 wheel brakes with a **clevis hitch** and a $\frac{3}{4}$ diameter by 4" pin with some type of lock.

DAILY CHECKLIST

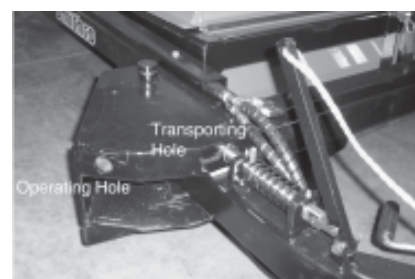
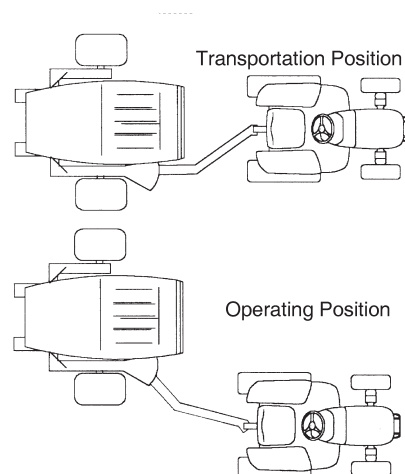
1. Check engine oil level in tow vehicle. Add as needed. **DO NOT OVERFILL.**
2. Tire pressure should be 18 psi (1.3 bar) on Sweep Star P48
3. Check hardware for loose or missing nuts, bolts, screws, etc., and tighten or replace as needed.
4. Inspect hydraulic lines for damage or leaks. Never use hands to inspect leaks.
5. Check hydraulic fluid level in tank on tow vehicle.
6. Check controls for smooth, proper working operation. Lubricate as needed.
7. Check and clean all debris from reel housing.

OPERATION SAFETY

1. Before operation check to see that brush reel is rotating properly.
2. To begin sweeping, lower sweeper head. Check to see that hydraulic lever is in low flow on Cushman Truckster.
3. Make sure towing vehicle is moving when you turn on brush.
4. Travel slow enough to ensure complete material pickup. If sweeper is not sweeping clean you will need to slow down your travel speed.
5. If possible try not to make sharp turns with the sweeper head on the ground.
6. When working on greens, begin at the edge and work inward.
7. Do not make sharp turns on inclines, as tongue could contact rear tires of tow vehicle causing the tow vehicle to overturn.
8. Do not stop the tow vehicle and let the brush run or damage to turf may result.
9. Sweeper will not pick up material properly if material is too wet.

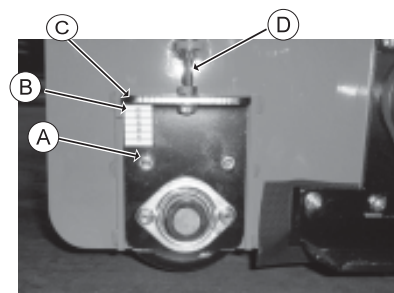
TOWING POSITIONS

1. The Sweep Star P48 has 2 Towing positions, operating and transport.
2. In transport position the sweeper follows directly behind the tow vehicle. This is used to tow the sweeper to and from the area being swept. The sweeper can be operated in transport position in small confined areas.
3. In operating position the sweeper follows to the left of the tow vehicle. You are not driving on the material you are sweeping. This position works well in open areas.
4. To offset the hitch in operating position. Stop the tow vehicle, raise the sweeper head off the ground. Pull the rope handle then drive slowly forward and turn to the right. Then release rope tension, drive forward until pin in tongue locks into hole. Lower sweeper head and began sweeping.
5. To change from operating position to transport position you will need to stop the tow vehicle, raise the sweeper head, pull the rope handle back up. The tow vehicle while turning to the left. Release rope tension until pin in tongue locks into transport hole.



ADJUSTING BRUSH HEIGHT

1. Park sweeper on hard surface. Lower head until roller contacts surface. Set brake on tow vehicle and shut off engine.
2. Rotate brush so it stops 90° off the surface. For most applications the brush should be set 1/4" above the hard surface. Some may require higher or lower settings.
3. To adjust height, loosen eight bolts (A) on roller adjustment plate (C), four on each side. Then loosen the top two nuts on the adjustment bolt (D) on each side. To raise the brush tighten the bottom nut and to lower the brush tighten the top nut.
4. The adjustment decal (B) are for reference only. So both sides can be set the same.
5. After all adjustments are made. Tighten all nuts and adjustment bolts. Test before putting into operation.



DUMPING HOPPER

1. After operating the sweeper for awhile and it is no longer picking up material effectively, it is time to empty hopper.
2. Make sure your dumping site is level and has adequate overhead clearance to fully raise the hopper.
3. TO empty the hopper. Stop the tow vehicle and lock the park brake. Lower sweeper head so lift cylinder extends all the way. Then hopper will began to raise. Continue to raise the hopper all the way or until all material has dumped out of hopper.
4. Lower hopper and hold valve lever down until sweeper head lifts. Then transport back to work site and continue sweeping until hopper fills again.

OPERATION

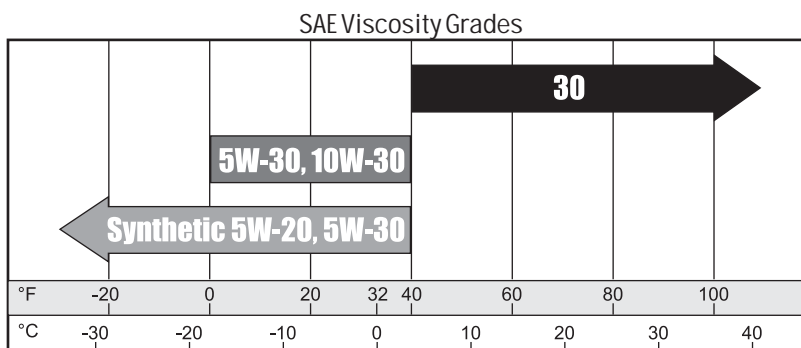
REMOVING SWEEPER FROM TOW VEHICLE

1. Make sure hopper is empty of all material, lowered to the ground position and parked on a level surface.
2. Set park brake on tow vehicle. Shut off engine.
3. Move valve levers back and forth several times to relieve hydraulic system pressure before disconnecting hoses from couplers.
4. Secure hoses off the ground of storage.
5. Remove rope and handle from tow vehicle and coil rope around front lift cylinder.
6. Lower jack and raise tongue. Remove hitch and drawbar pin.
7. If sweeper is not going to be used for an extended period of time. See Storage section.



ENGINE OIL

Change and add oil according to chart below. Do not overfill. Use a high quality detergent oil classified "For Service SJ or higher" SAE 30 oil. Use no special additives with recommended oils. Do not mix oil with gasoline.



Starting Temperature Range Anticipated Before Next Oil Change

Air cooled engine run hotter than automotive engines. Use of multi-viscosity oils (10W-30, etc.) above 40° F (4° C) will result in high oil consumption and possible engine damage. Check oil level more frequently if using these types of oils.

SAE 30 oil, if used below 40° F (4° C), will result in hard starting and possible engine bore damage due to inadequate lubrication.

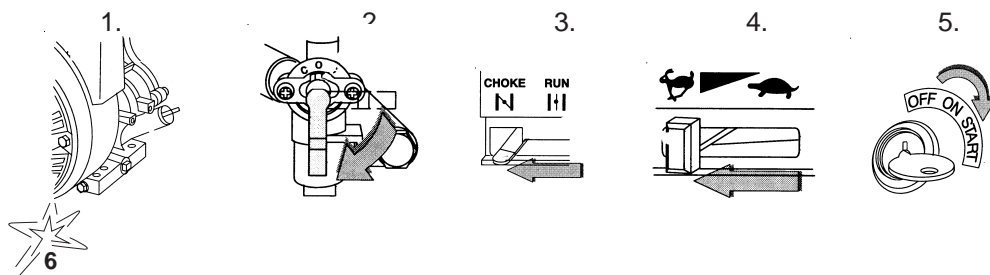
FUEL RECOMMENDATION

Use clean, lead-free gasoline with a minimum of 85 octane.

STARTING ENGINE

Check oil level.

2. Open fuel shut off valve.
3. Move choke to the Choke position.
4. Move throttle control to fast position.
5. Turn key to the start position. Repeat if necessary with throttle control in Fast position.



STOPPING THE ENGINE

1. Do not move choke control to CHOKE position to stop engine. Backfire or engine damage may occur.
2. Move Throttle control to idle or SLOW position. Then turn key to off position.
3. Close fuel shut off valve.
4. Always remove key from the switch when equipment is not in use or left unattended.

MAINTENANCE



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

NOTE:

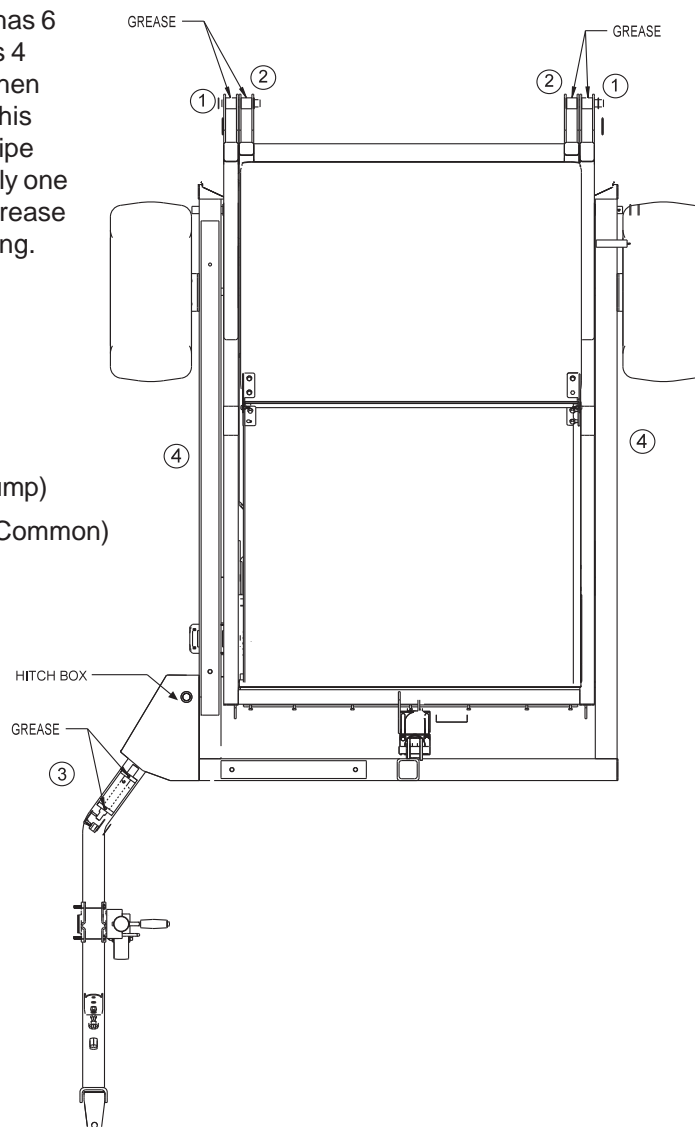
Use all procedures and parts prescribed by the manufacturer's. Read the engine manual before operation.

LUBRICATION

Use No. 2 General Purpose Lithium Base Grease and lubricate **DAILY**. The Sweep Star P48 High Dump has 6 grease fittings. The Sweep Star P48 Low Dump has 4 grease fittings. 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. Apply grease to bottom inner surface of hitch box to prevent binding.

Ref#Location

- 1 Two on inside frame pivot tube. (High Dump)
- 2 Two on hopper sub frame pivot tube. (High Dump)
- 3 Two on the hitch lock pin by the coil spring. (Common)
- 4 Two on each side on rod end. (Low Dump)



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). 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.

SERVICE INTERVALS

Before each Use:

Lubricate all pivot points. Use No. 2 General Purpose Lithium Base Grease.

Check tow vehicle fluid levels.

Check tongue positioning rope for wear.

After Each Use:

Make sure hopper is emptied.

Inspect hydraulic system for leaks or damage.

Check for loose or missing hardware.

After 10 hours:

Check brushes for wear.

Check and adjust brush height.

Lubricate all pivot points and grease fittings

After 50 hours:

Check wheel lug nuts torque to 70 nm (50 lb ft).

Inspect tires - Check air pressure 18 psi

After 75 hours:

Check rubber skirts for wear or damage.

After 125 hours:

Lubricate wheel bearings.

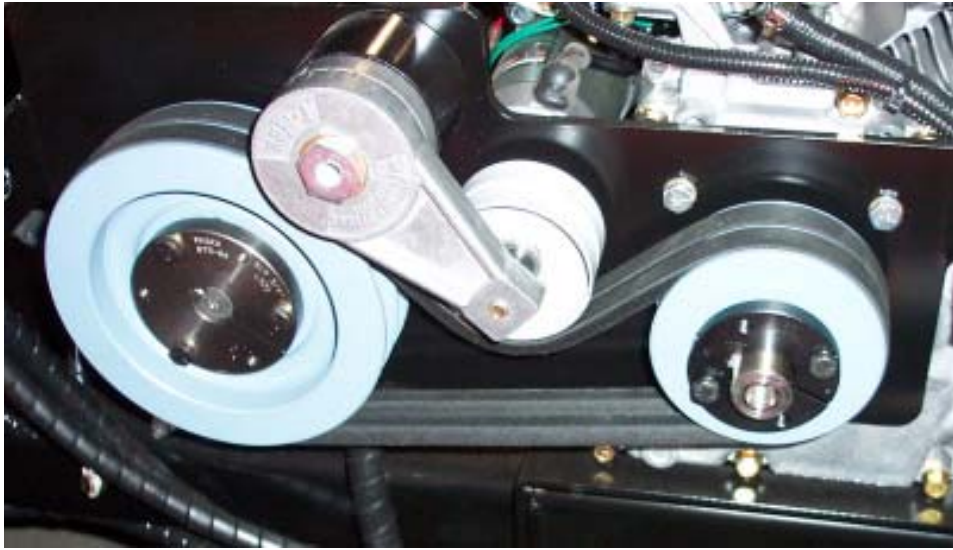
HOPPER LIFT SAFETY

The Hopper Lift Safety Bars are 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 rear hopper bed frame.

	Daily	As Required	5 Hours	25 Hours	50 Hours	75 Hours	100 Hours	Every Season
⌘ Engine Oil								
⌘ Engine Oil Filter								
Engine for Leaks and Loose Parts								
‡ Air Cleaner (Paper Element)								
Spark Plugs								
Idle Speed								
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								

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.

BELT TENSIONER ON P48E



BELT TENSIONER

The belt tensioner controls the tension on the belt from the engine to the pump. The proper tension of the idler should be in the second notch on the side of the tensioner. 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 the bolt holding the tensioner. Bring idler pulley tight to the belt and turn tensioner into belt to the second notch. Tighten bolt on tensioner.

If hopper and sweeper head will not raise.

Check for proper connection of hydraulic hoses to couplers.

Check hydraulic couplers for full engagement.

Check hydraulic oil level in tow vehicle.

Check for damage or leaking of hydraulic cylinders.

Hopper may be overloaded.

If hopper will not lower.

Raise hopper and remove hopper lift safety bars.

Check for damaged pivot pins.

If hopper or sweeper head will not hold position.

Tighten leaking hydraulic fittings.

Replace hydraulic lines that leak.

If brush will not rotate.

Check for proper connection of hydraulic hoses to couplers.

Check hydraulic couplers for full engagement

Check hydraulic oil level in tow vehicle

Check for damaged hydraulic motor.

Check for damaged brush shaft bearings.

If not all material is picked up.

Material is too wet. Let material dry.

Check tires for equal pressure.

Check and adjust brush height.

Use a slower travel speed.

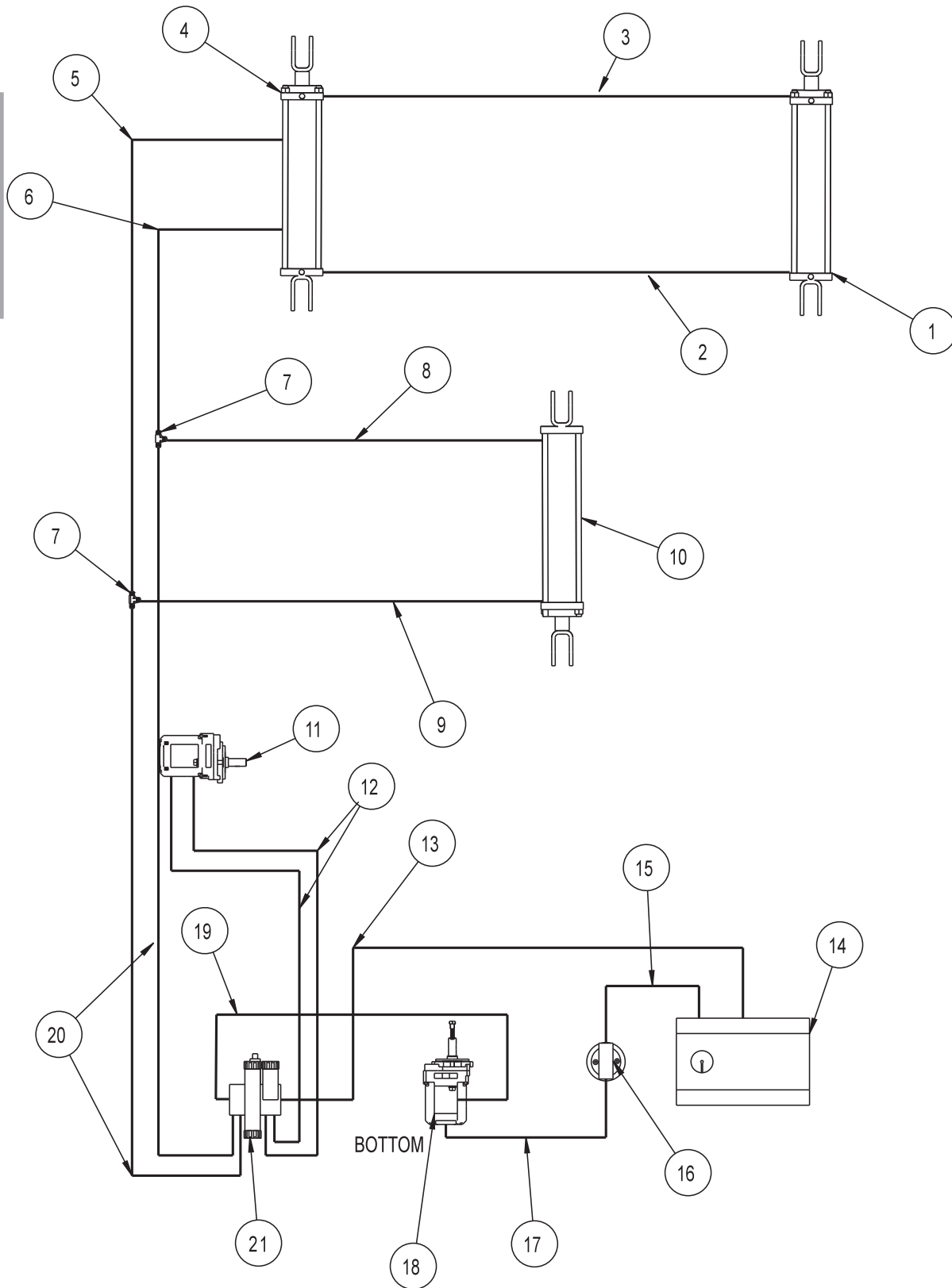
Empty hopper if it may be full.

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.
5. Make sure the brush sections are at 45° to the ground or bristle deformation could occur.

P48HE HIGH DUMP ENGINE DRIVE HYDRAULIC DRAWING

7-700-A P48 HE



P48HE HIGH DUMP ENGINE DRIVE HYDRAULIC PARTS LIST

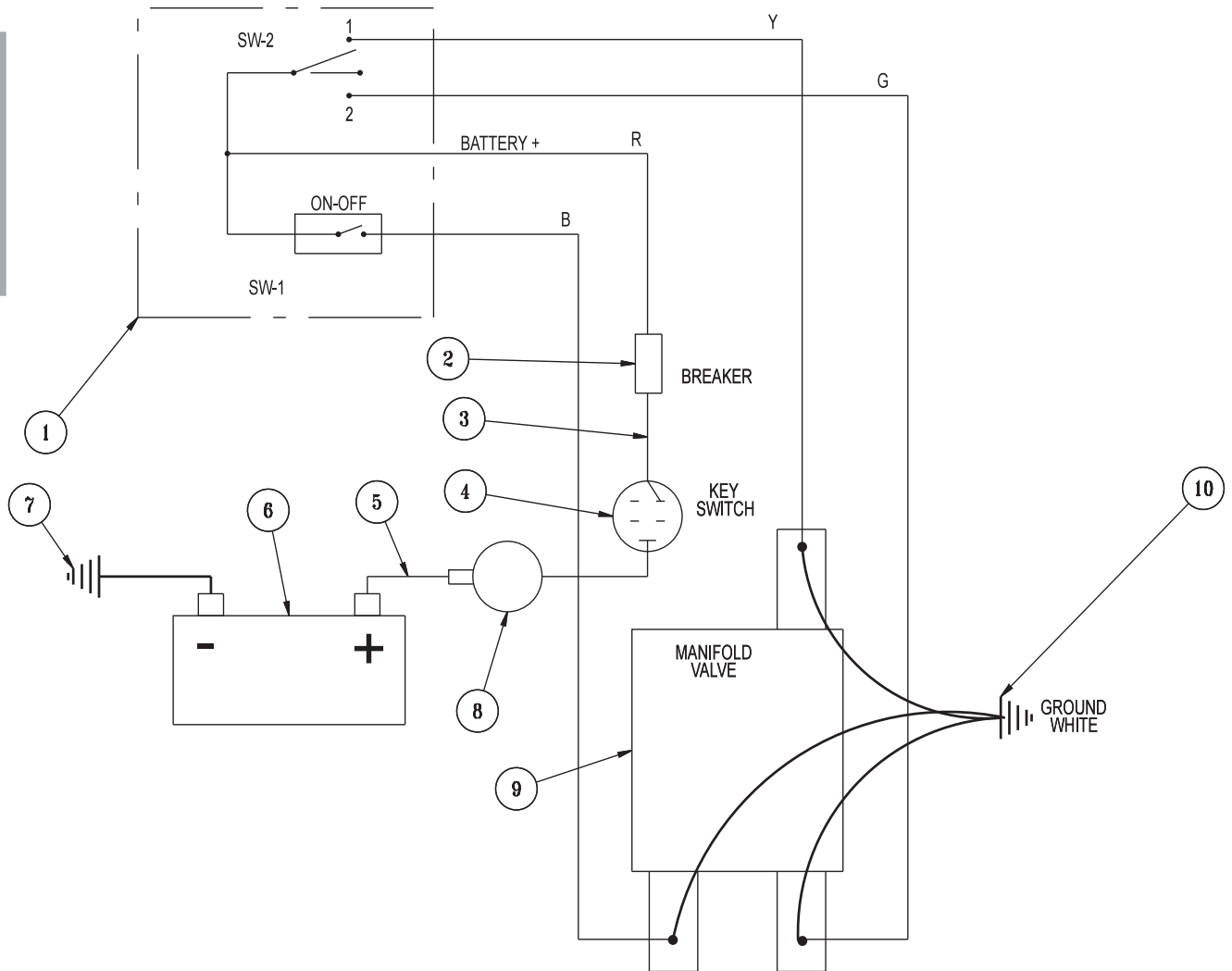
REF#	PART#	DESCRIPTION	QUANTITY
1	76-242	Hydraulic Cylinder	1
	23-167	Elbow	2
2	7-838	Hydraulic Hose 68"	1
3	7-837	Hydraulic Hose 102"	1
4	76-242	Hydraulic Cylinder	1
	23-167	Elbow	2
	23-188	Male Connector $\frac{3}{8}$ " (bottom)	1
	18-190	Tee (top)	1
5	7-839	Hydraulic Hose 106"	1
6	7-840	Hydraulic Hose 91"	1
7	18-173	Tee $\frac{3}{8}$ " Union	2
8	7-841	Hydraulic Hose 43"	1
9	7-842	Hydraulic Hose 34"	1
10	7-834	Hydraulic Cylinder	1
	23-167	Male Elbow	2
11	7-833	Hydraulic Motor	1
12	7-708	Hydraulic Hose 40"	2
13	7-706	Hydraulic Hose 48"	1
14	13-584	Oil Tank	1
	13-747	Filler Breather	1
	13-586-03	Neck	1
15	8917-12	$\frac{5}{8}$ " Suction Hose 12"	1
16	23-006	Filter Assembly	1
	23-031	Replacement Filter Only	1
17	8917-16	$\frac{5}{8}$ " Suction Hose 16"	1
18	7-712	Hydraulic Mount	1
19	7-707	Hydraulic Hose 40"	1
20	7-709	Hydraulic Hose 24"	2
21	7-711	DO3 Manifold Valve	1

7-700-A P48 HE



P48HE HIGH DUMP ENGINE DRIVE ELECTRICAL DRAWING

7-700-A P48 HE



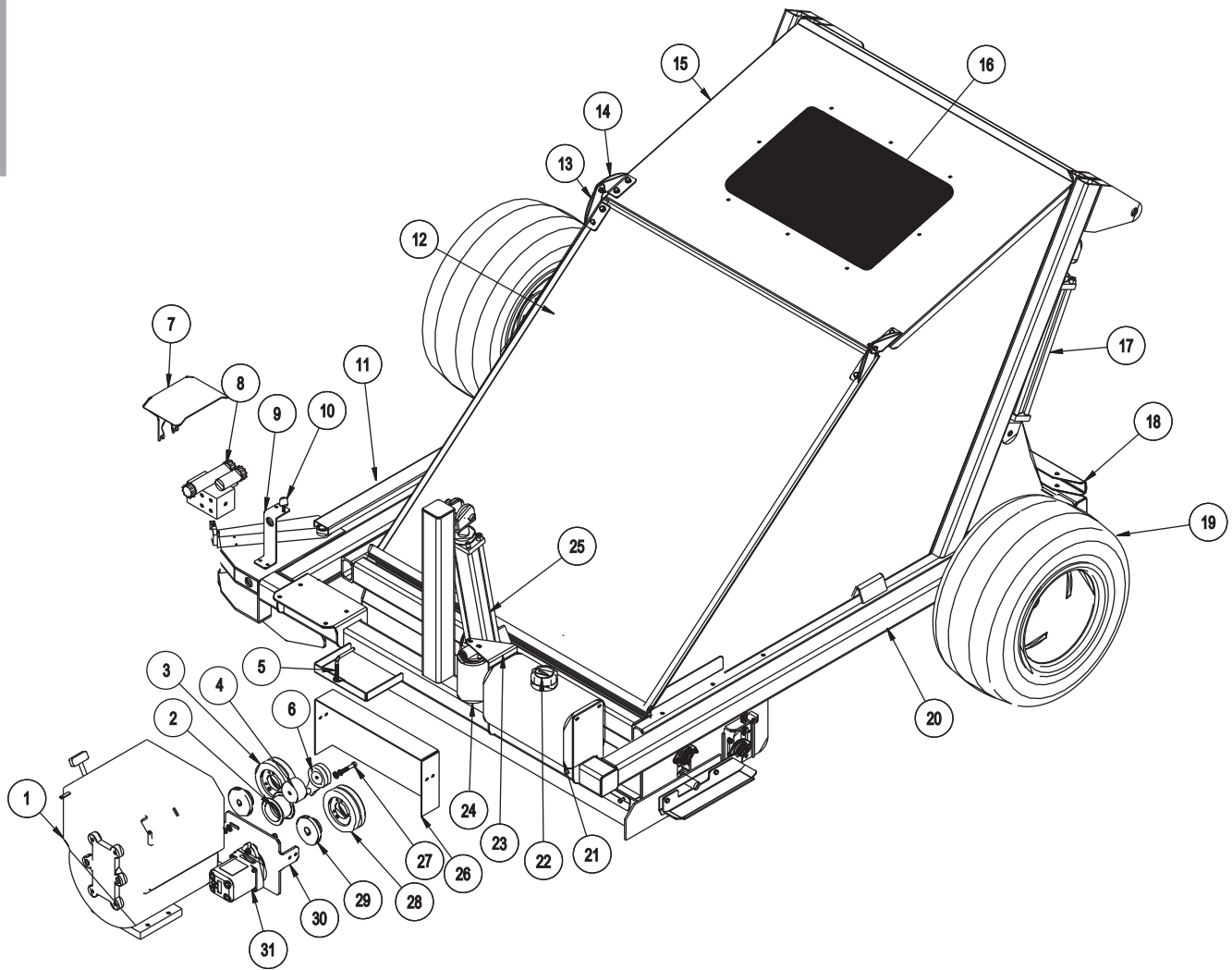
P48HE HIGH DUMP ENGINE DRIVE ELECTRICAL PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	7-713	Control Box with Wire Harness	1
2	8975	Circuit Breaker	1
	8977	Circuit Breaker Boot	1
3	7-716	Red Wire Assembly	1
4	13-488	Key Switch (part of engine)	1
5	22-065	Positive Battery Cable	1
6		U-1 300 Amp Battery (not supplied)	1
7	22-065	Negative Ground Battery Cable	1
8		Starter (part of engine)	1
9	7-711	Manifold Valve	1
10	7-715	Ground Wire Assembly	1

7-700-A P48 HE

SWEEP STAR P48HE HIGH DUMP ENGINE DRIVE DRAWING

7-700-A P48 HE



SWEEP STAR P48HE HIGH DUMP ENGINE DRIVE PARTS LIST

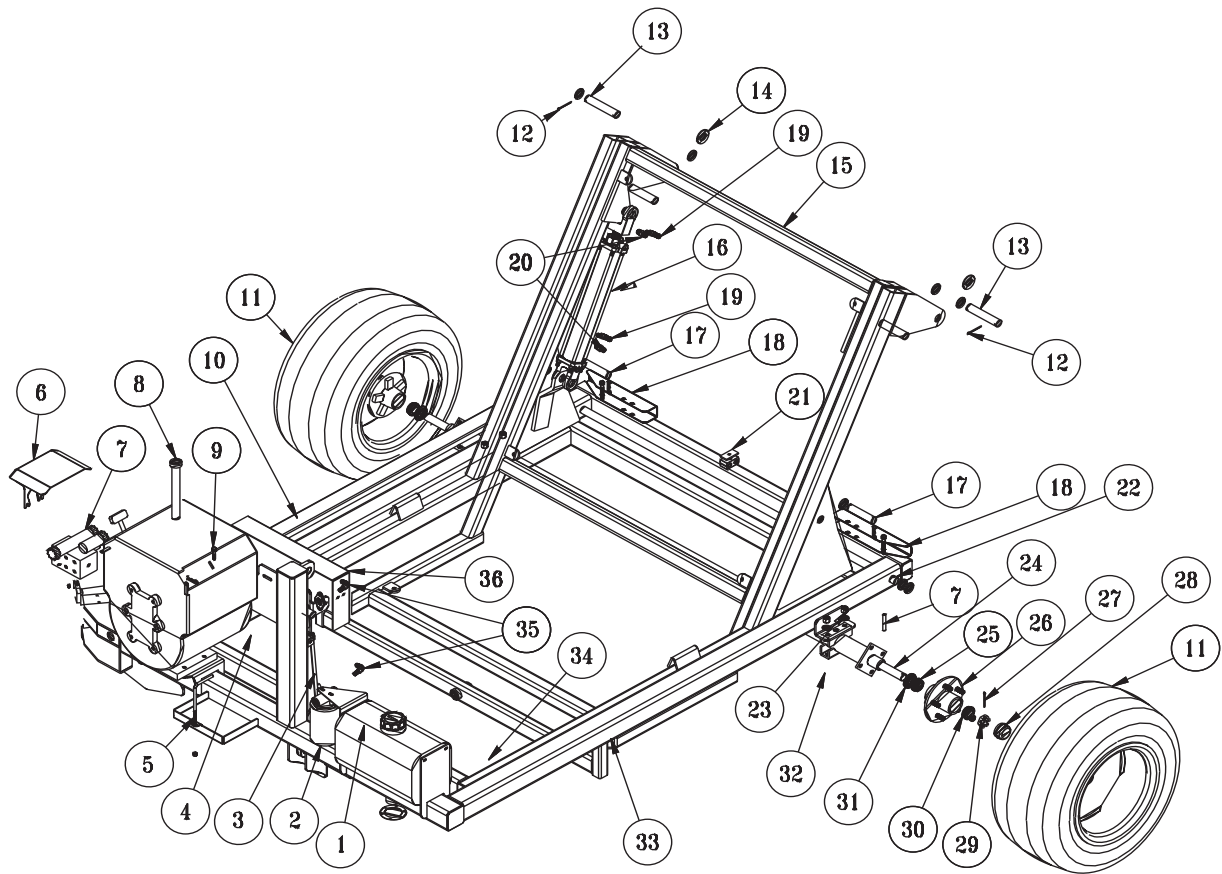
REF#	PART#	DESCRIPTION	QUANTITY
1	7-710	Engine Briggs 7.5 HP	1
2	16-013	Idler Pulley	1
	10-134	Spacer	1
3	77-124	Pulley w/ Hub	1
	HKSQ-14-100	Square Key 1/4 x 1	1
4	42-361	Tensioner Spacer	1
5	42-327	Belt Tensioner	1
6	7-717	Battery Hold-down	1
7	7-722	Valve Cover	1
8	7-711	Manifold Valve	1
9	7-720	Valve Cover Support	1
	7-724	3/4" Clamp	1
10	15-013	Rubber Bumper	1
11	7-818	Side Hose Guard	1
12	7-808	Hopper Assembly	1
13	7-826	Right Hinge Bracket	2
14	7-827	Left Hinge Bracket	2
15	7-829	Hopper Door	1
	7-830	Screen Door	1
16	7-831	Screen Cover	1
17	72-242	Hydraulic Cylinder	2
18	75-653	Hopper Lift Safety Bar	2
19	16-225-01	Tire 24 x 13 x 12	2
	72-042-02	Wheel	2
20	7-719	Main Frame	1
21	13-584	Oil Tank	1
22	13-747	Filler Breather	1
	13-586-03	Neck	1
23	17-184	Filter Bracket	1
24	23-006	Oil Filter	1
25	7-834	Hydraulic Cylinder	1
26	7-721	Belt Guard	1
	HB-516-18-150	Bolt 5/16 - 18 x 1 1/2	4
	HW-516	Washer 5/16	4
	HNTL-516-18	Lock Nut 5/16 -18	4
27	HB-38-16-275	Bolt 3/8 - 16 x 2 3/4	1
	HW-38	Washer 3/8	1
	HNFL-38-16	Flange Lock Nut 3/8 - 16	1
28	7-714	Pulley	1
29	42-246	Hub 3/4"	1
30	7-718	Pump Mount	1
	HB-516-18-100	Bolt 5/16 -18 x 1	6
	HWL-516	Lockwasher 5/16	6
	HNFL-516-18	Flange Whiz Lock Nut	2
31	7-712	Hydraulic Pump	1
NS	21-005	V-Belt	2

7-700-A P48 HE



MAIN FRAME P48HE HIGH DUMP ENGINE DRIVE DRAWING

7-700-A P48 HE



MAIN FRAME P48HE HIGH DUMP ENGINE DRIVE PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	13-584	Oil Tank	1
	13-747	Filler Breather	1
	13-586-03	Neck	1
2	23-006	Oil Filter	1
	23-031	Replacement Filter Only	
3	7-834	Hydraulic Cylinder	1
	7-819	Lift Cylinder Pin	3
	76-288	Spacer	4
	HMB-100-14	Machine Bushing 1 x 14GA	4
4	7-712	Hydraulic Pump	1
	7-718	Pump Mount	1
5	7-717	Battery Holddown	1
	HNTL-516-18	Lock Nut $\frac{5}{16}$ - 18	1
6	7-722	Valve Cover	1
	7-720	Valve Cover Support	1
7	7-711	Manifold Valve	1
8	7-814	Pivot Arm	1
	HP-316-200	Cotter Pin $\frac{3}{16}$ x 2	1
9	7-710	Engine 7.5 HP	1
10	7-818	Side Hose Guard	1
	HB-516-18-150	Bolt $\frac{5}{16}$ - 18 x $1\frac{1}{2}$	2
	HWL-516	Lock Washer $\frac{5}{16}$	2
11	16-225-01	Tire Only 24 x 13 x 12	2
	72-042-02	Wheel Only	2
12	HHP-.177	Bridge Pin .177 x 3.75	4
13	HCP-100-500	Clevis Pin 1 x 5	2
14	HW-100	Washer 1"	2
15	7-807	Hopper Sub Frame	1
16	76-242	Hydraulic Cylinder	2
17	HCP-100-400	Clevis Pin 1 x 4	2
	11-092	Spacer	4
	HMB-100-14	Machine Bushing 1 x 14GA	4
18	75-653	Hopper Lift Safety Bar	2
	75-651	Decal, Hopper Lift Safety Bar	2
	HB-38-16-250	Bolt $\frac{3}{8}$ - 16 x $2\frac{1}{2}$	2
	HNW-38-16	Wing Nut $\frac{3}{8}$ - 16	2
19	23-167	Elbow	4
20	23-188	Male Connector $\frac{3}{8}$	1
21	13-652	Hose Clamp	1
22	7-828	Frame Pivot Shaft	1
	HMB-100-10	Machine Bushing 1 x 10GA	4
	HRP-38-250	Roll Pin $\frac{3}{8}$ x $2\frac{1}{2}$	2
23	HN-12-20	Nut $\frac{1}{2}$ - 20	4
	HWL-12	Lock Washer $\frac{1}{2}$	4
24*	72-048	Axle (includes all * item)	1
25*	78-118	Inner Bearing	2
26*	33-074	Hub Assembly	2
27	HP-18-200	Cotter Pin $\frac{1}{8}$ x 2	2
28*	33-073-02	Dust Cap	2
29	HNAR-100-14	Slotted Jam Nut 1-14	2

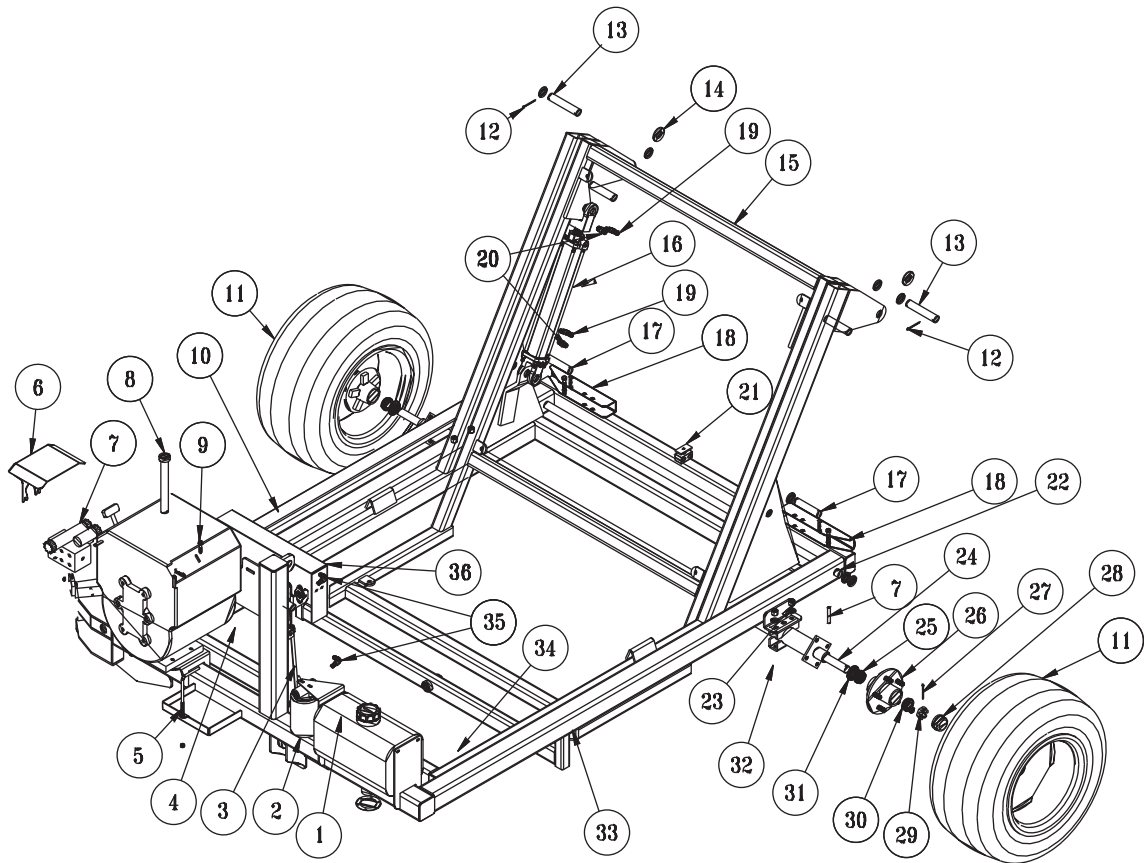
(Continued on next page)

7-700-A P48 HE



MAIN FRAME P48HE HIGH DUMP ENGINE DRIVE DRAWING

7-700-A P48 HE

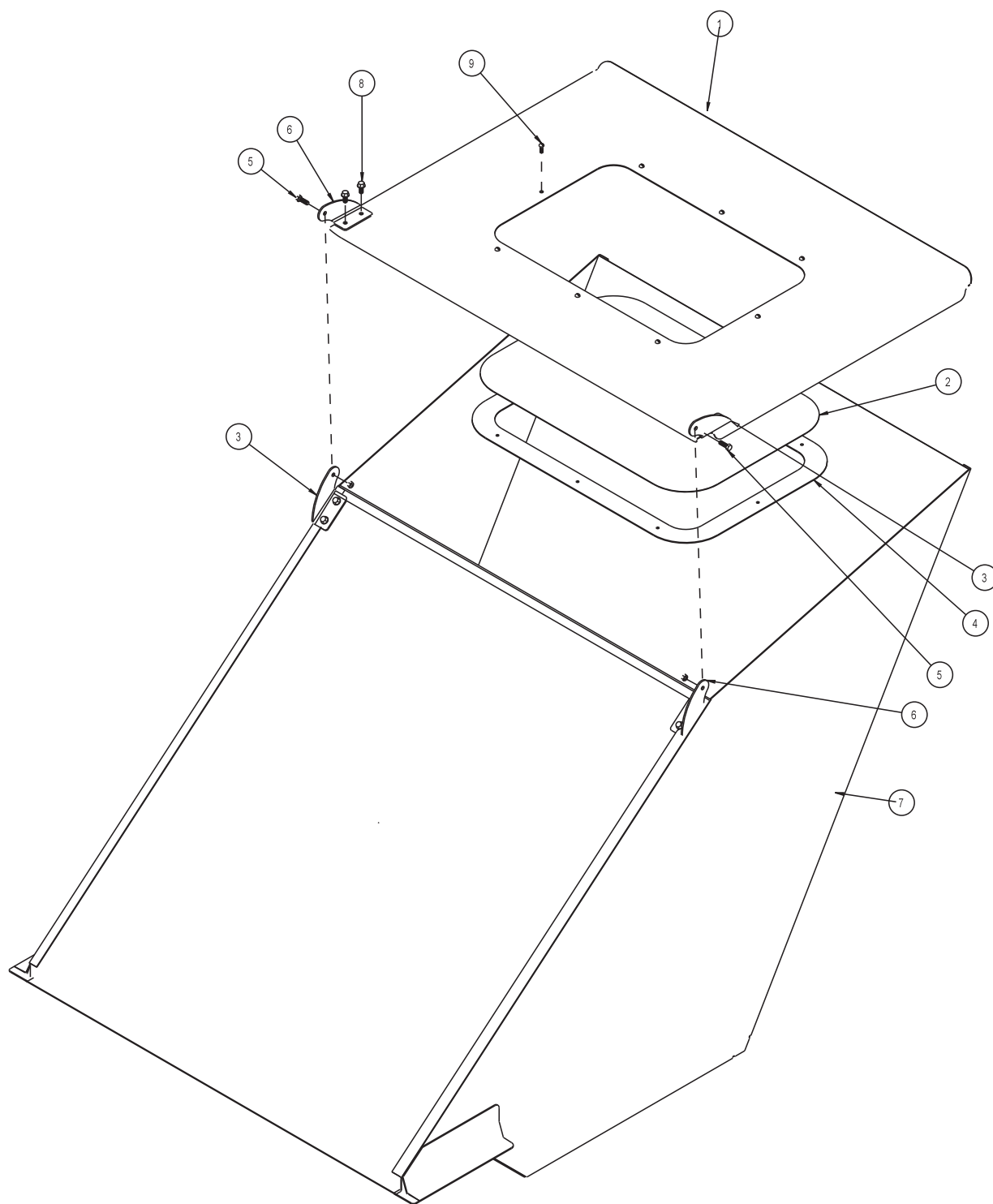


MAIN FRAME P48HE HIGH DUMP ENGINE DRIVE PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
30*	78-119	Outer Bearing	2
31*	33-073-01	Grease Seal	2
32	20-181	U-Bolt	2
33	7-719	Main Frame	1
34	7-869	Inside Frame	1
35	23-167	Male Elbow	2
36	7-721	Belt Guard	11

7-700-A P48 HE

HIGH DUMP HOPPER DRAWING

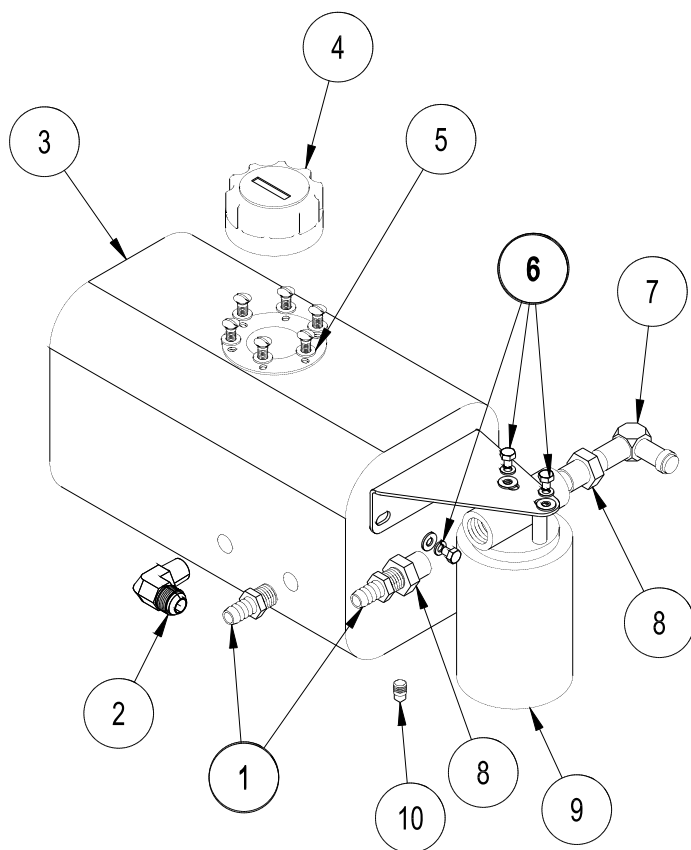


COMMON Parts

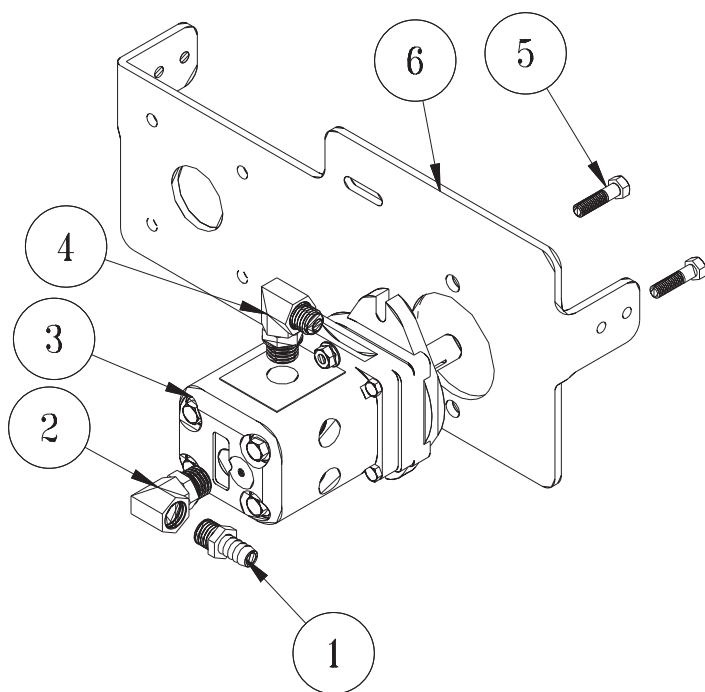
HIGH DUMP HOPPER PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	7-829	Hopper Door	1
	8803-44	Trim	1
2	7-831	Screen Cover	1
3	7-826	Right Hinge Bracket	2
4	7-830	Screen Door	1
5	HB-516-18-100	Bolt $\frac{5}{16}$ - 18 - 1	2
	HNFL-516-18	Lock Nut $\frac{5}{16}$ - 18	2
6	7-827	Left Hinge Bracket	2
7	7-808	Hopper Assembly	1
	HB-38-16-100	Bolt $\frac{3}{8}$ - 16 x 1	6
	HW-38	Washer $\frac{3}{8}$	6
	HNFL-38-16	Flange Whiz Lock Nut $\frac{3}{8}$ - 16	6
8	HBFL-516-18-075	Flange Whiz Bolt $\frac{5}{16}$ - 1 8 x $\frac{3}{4}$	4
	HNFL-516-18	Flange Whiz Lock Nut $\frac{5}{16}$ - 18	4
9	HSTP-14-20-075	Phillips Machine Screw $\frac{1}{4}$ - 20 x $\frac{3}{4}$	8
	HNFL-14-20	Flange Whiz Lock Nut $\frac{1}{4}$ - 20	8

HYDRAULIC OIL TANK AND FILTER DRAWING



HYDRAULIC PUMP DRAWING



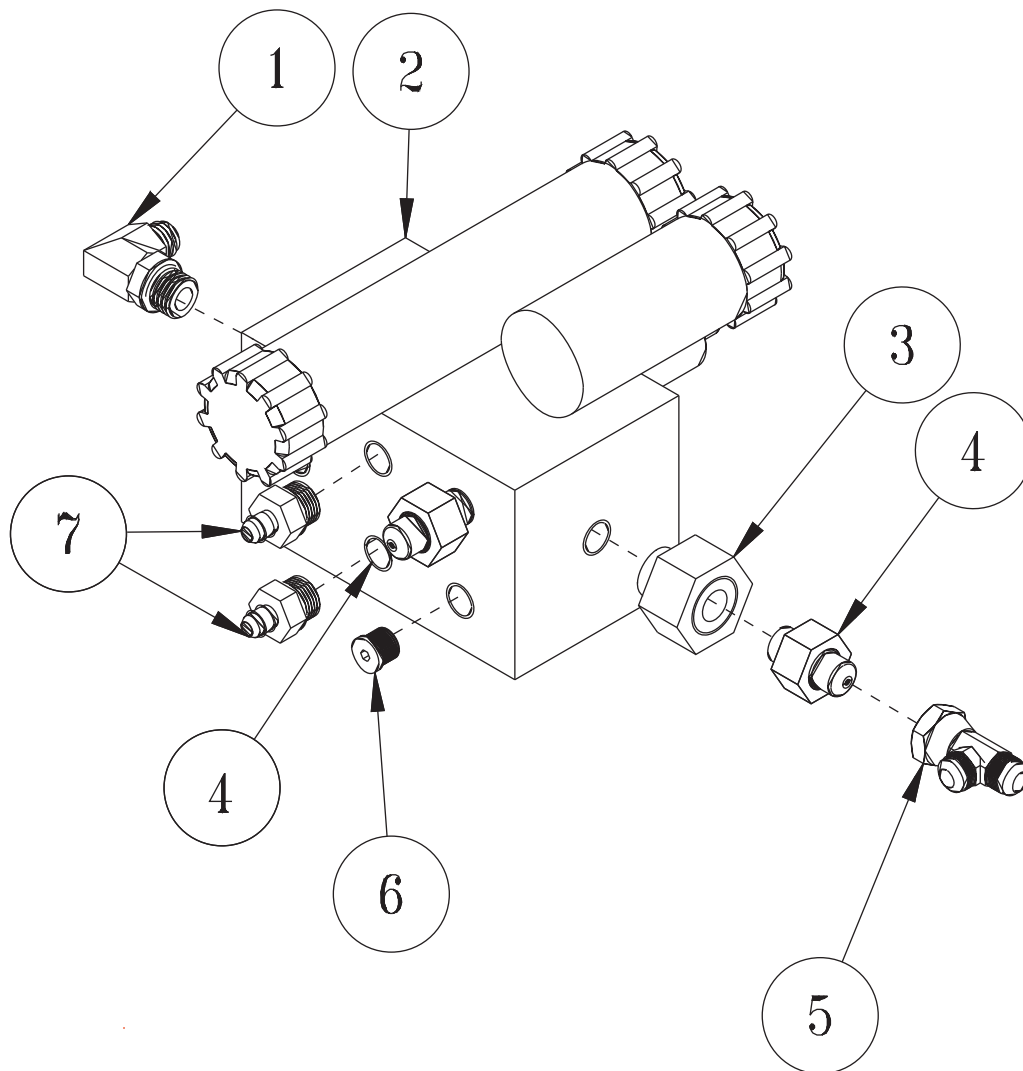
HYDRAULIC OIL TANK AND FILTER PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	23-139	Barb Fitting	2
2	18-246	Adapter	2
3	13-584	Oil Tank	1
4	13-747	Filler Breather	1
5	13-586-03	Neck	1
6	HB-14-20-075	Bolt $\frac{1}{4}$ - 20 x $\frac{3}{4}$	4
	HW-14	Washer $\frac{1}{4}$	4
	HWL-14	Lock Washer $\frac{1}{4}$	4
7	23-142	90° Barb Fitting	1
8	18-008	Reducer	2
9	23-006	Oil Filter	1
	23-031	Replacement Filter	
10	18-118	Plug	1

HYDRAULIC PUMP PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	23-139	Barb Fitting	1
2	23-127	90° elbow	1
3	7-712	Hydraulic Pump	1
4	23-189	Elbow	1
5	HB-38-16-100	Bolt $\frac{3}{8}$ - 16 x 1	2
	HWL-38	Lock Washer $\frac{3}{8}$	2
	HNFL-38-16	Flange Whiz Lock Nut $\frac{3}{8}$ - 16	2
6	7-718	Pump Mount	1

MANIFOLD VALVE DRAWING

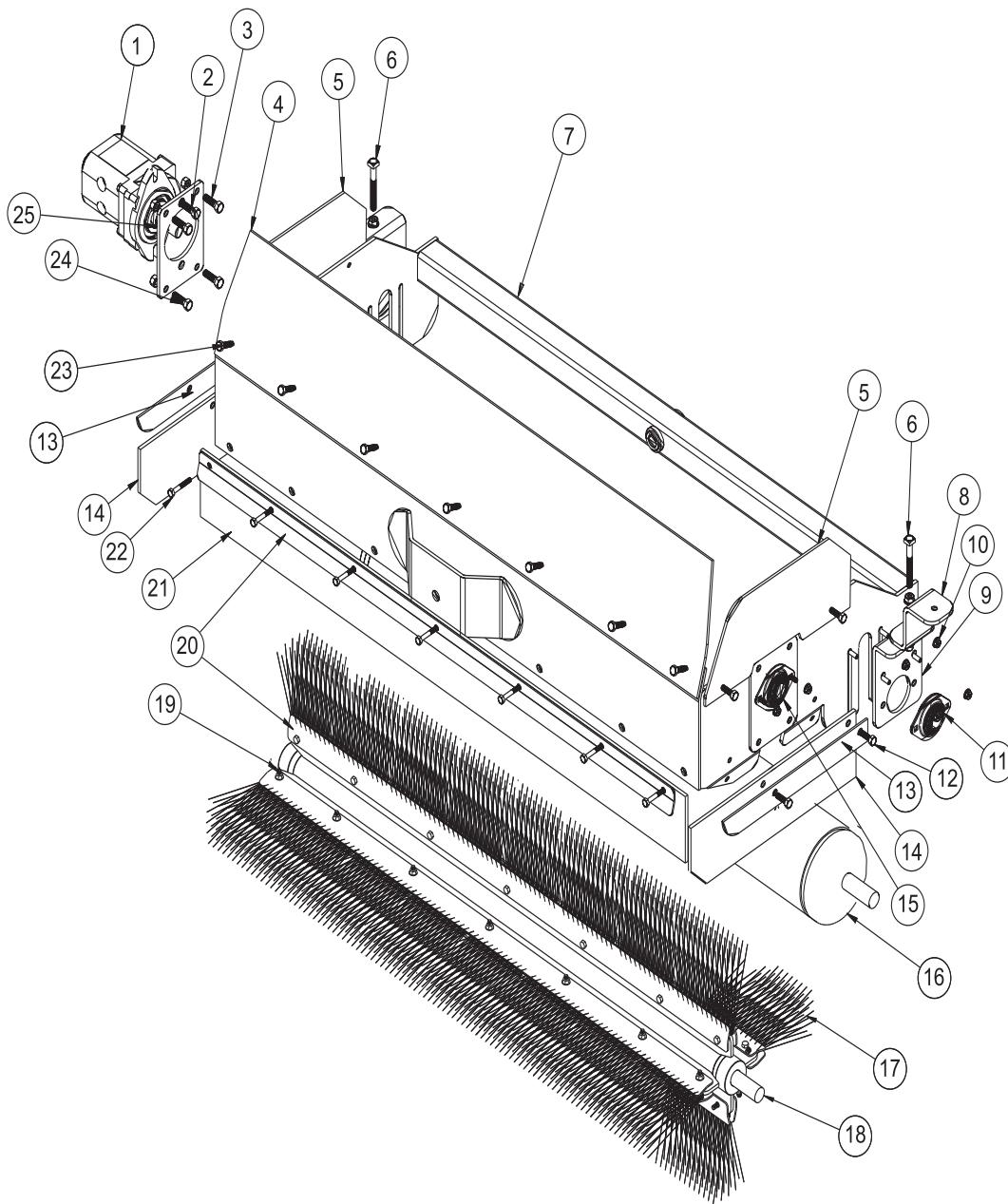


COMMON Parts

MANIFOLD PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	23-189	Elbow	1
2	7-711	Manifold Valve	1
3	18-176	Reducer	1
4	18-227	Adapter	2
5	18-337	Run Tee	1
6	18-228	Hex Plug	1
7	18-241	Adapter	2

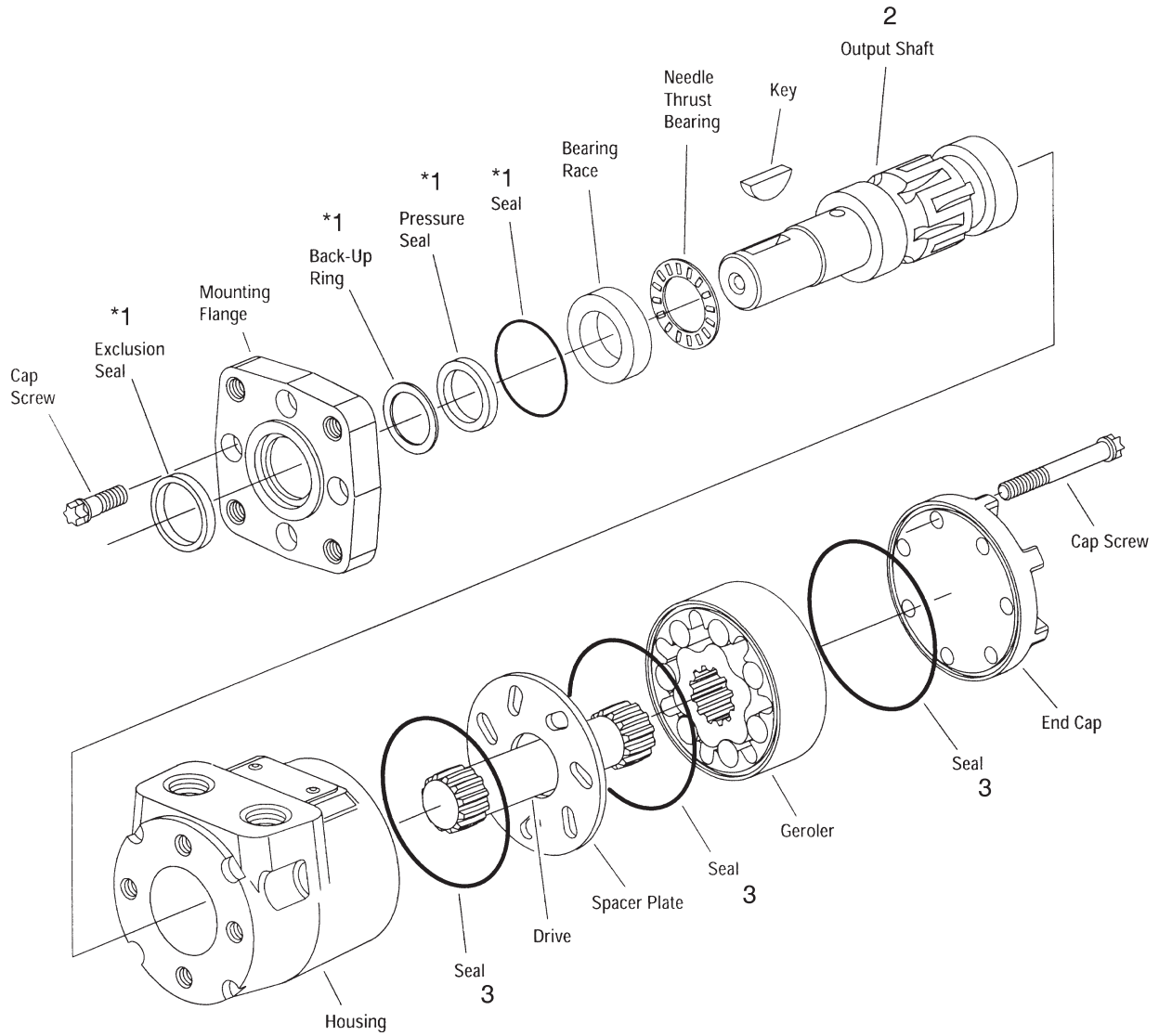
REEL DRAWING



COMMON Parts

REF#	PART#	DESCRIPTION	QUANTITY
1	7-833	Hydraulic Motor	1
2	HB-12-13-175	Bolt $\frac{1}{2}$ - 13 x $1\frac{3}{4}$	1
	HNFL-12-13	Lock Nut $\frac{1}{2}$ - 13	1
3	HB-38-16-125	Bolt $\frac{3}{8}$ - 16 x $1\frac{1}{4}$	4
	HNFL-38-16	Flange Whiz Lock Nut $\frac{3}{8}$ - 16	4
4	7-874	Front Flap	1
5	7-873	Side Flap	2
6	HSSQ-38-16-300	Square Head Set Screw $\frac{3}{8}$ - 16 x 3	2
	HNFL-38-16	Flange Whiz Lock Nut $\frac{3}{8}$ - 16	6
7	7-868	Pick Up Head - Swivel	1
8	7-870	Swivel Limit Bracket	1
9	7-822	Roller Adjustment Plate	2
10	HB-516-18-100	Bolt $\frac{5}{16}$ - 18 x 1	8
	HNFL-16-18	Flange Whiz Lock Nut $\frac{5}{16}$ - 18	8
11	13-391	Flange Bearing 1"	3
12	HB-516-18-100	Bolt $\frac{5}{16}$ - 18 x 1	4
	HNFL-516-18	Flange Whiz Lock Nut $\frac{5}{16}$ - 18	4
13	7-875	Flap Bracket	2
14	9009-16	Belting 16"	2
15	HB-14-20-100	Bolt $\frac{1}{4}$ - 20 x 1	2
	HNFL-14-20	Flange Whiz Lock Nut $\frac{1}{4}$ - 20	2
16	7-809	Roller Assembly	1
17	48-086	Brush	4
18	7-812	Brush Reel	1
	7-812-01	Bearing	2
19	HB-14-20-150	Bolt $\frac{1}{4}$ - 20 x $1\frac{1}{2}$	28
	HNFL-14-20	Lock Nut $\frac{1}{4}$ - 20	28
20	7-825	Brush Holder Strip	9
21	9009-47	Belting 47"	1
22	HB-14-20-175	Bolt $\frac{1}{4}$ - 20 x $1\frac{3}{4}$	7
	HNFL-14-20	Lock Nut $\frac{1}{4}$ - 20	7
23	HSTP-14-20-075	Truss Head Screw $\frac{1}{4}$ - 20 x $\frac{3}{4}$	7
	HNFL-14-20	Flange Whiz Lock Nut $\frac{1}{4}$ - 20	7
24	HB-12-13-150	Bolt $\frac{1}{2}$ - 13 x $1\frac{1}{2}$	1
	HNFL-12-13	Lock Nut $\frac{1}{2}$ - 13	1
25	7-871	Hydraulic Motor Plate	1

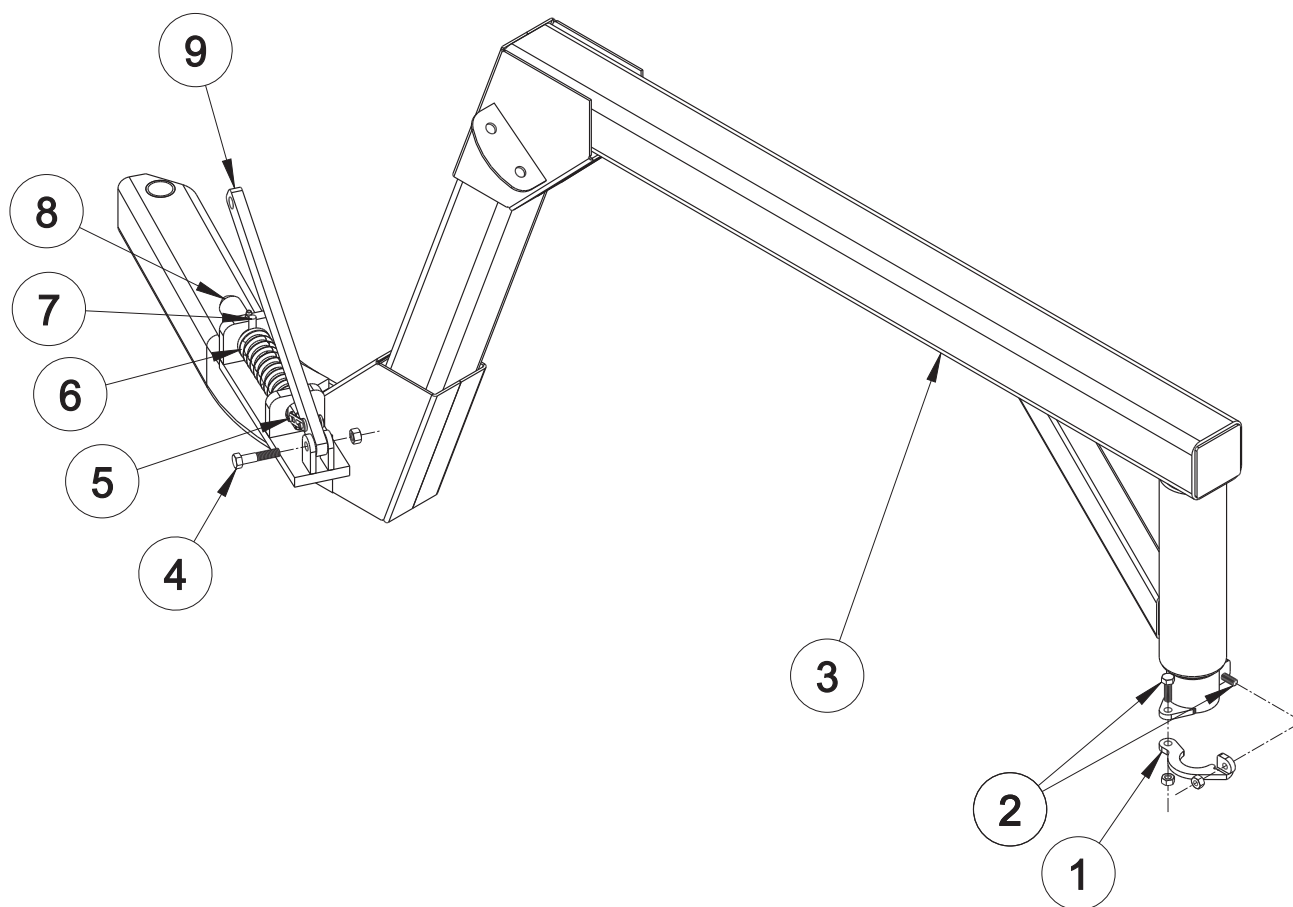
7-833 HYDRAULIC MOTOR DRAWING



7-833 HYDRAULIC MOTOR PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	7-833-01	O-Ring Seal Kit	1
2	7-833-02	Shaft	1
3	7-833-03	Seal	3

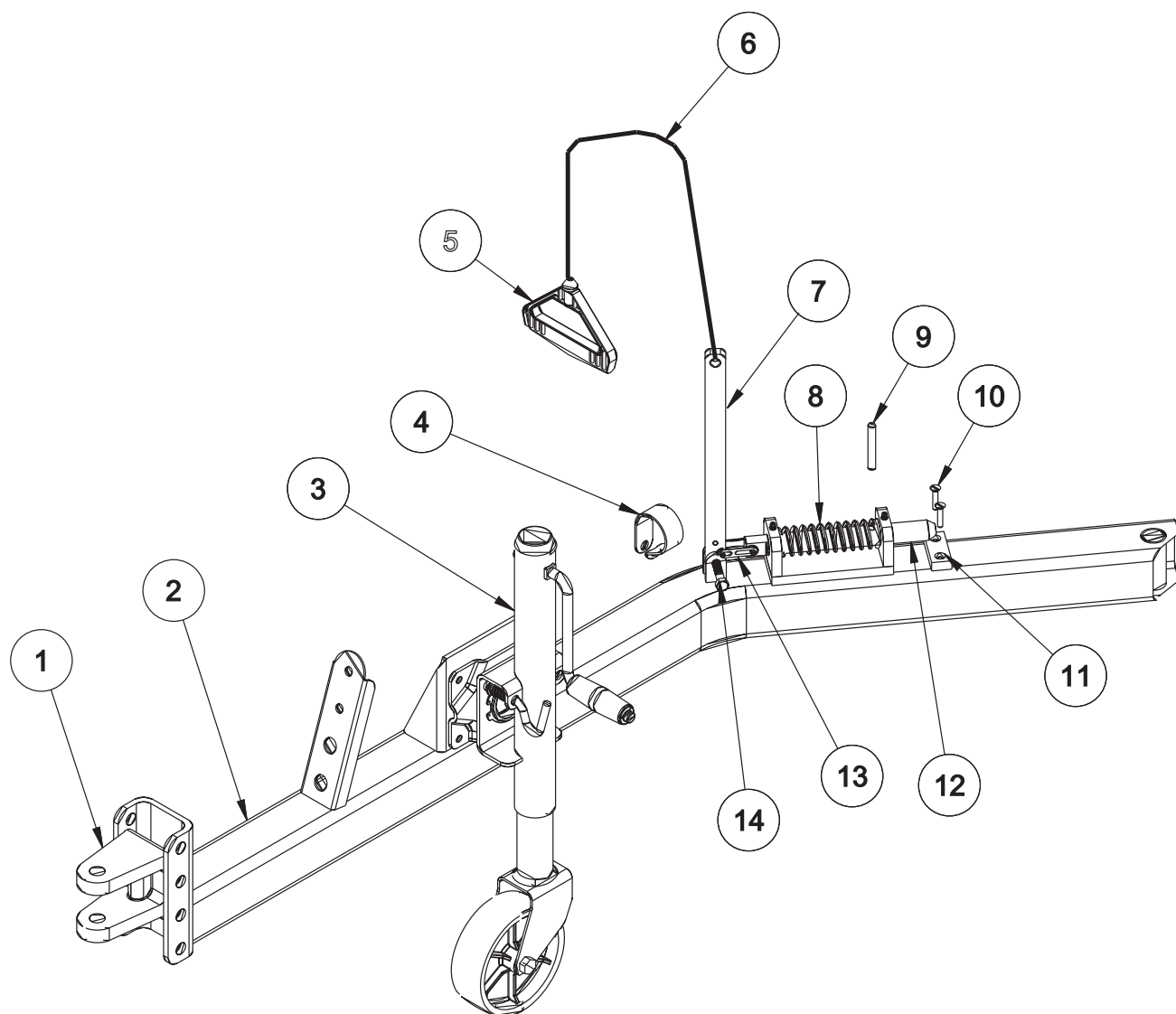
71-702 5TH WHEEL HITCH ASSEMBLY





REF#	PART#	DESCRIPTION	QUANTITY
1	78-390	Ball Lock Arm	1
2	HB-516-18-100	Bolt $\frac{5}{16}$ - 18 x 1	2
	HNTL-516-18	Lock Nut $\frac{5}{16}$ - 18	2
3	7-725	5th Wheel Gooseneck	1
	HG-14-28-180	Grease Fitting	1
4	HB-38-16-175	Bolt $\frac{3}{8}$ - 16 x $1\frac{3}{4}$	1
	HNTL-38-16	Lock Nut $\frac{3}{8}$ - 16	1
5	13-417	Master Link	1
6	16-918	Coil Spring	1
7	HRP-38-250	Roll Pin $\frac{3}{8}$ x 1	1
8	7-815	Lock Pin	1
9	7-816	Lock Handle	1
	9011-40	Rope, 10'	1
	7-835	Mitten Grip	1

71-703 STANDARD HITCH ASSEMBLY



71-703 STANDARD HITCH ASSEMBLY

REF#	PART#	DESCRIPTION	QUANTITY
1	78-244	Clevis Assembly	1
2	7-813	Tongue Assembly	1
3	5-036	Trailer Jack	1
4	HLC-A-200	Loom Clamp	1
5	7-835	Mitten Grip	1
6	9011-10	1/4" Poly Rope 10' Long	1
7	7-816	Lock Handle	1
8	16-918	Coil Spring	1
9	HRP-38-250	Roll pin 3/8 x 2 1/2	1
10	HSMFCS-14-20-100	Machine Screw 1/4 - 20 x 1	2
11	7-860	Wearstrip Tongue Bracket	1
12	7-815	Hitch Lock Pin	1
13	13-417	Connector Link	1
14	HB-38-16-175	Bolt 3/8 - 16 x 1 3/4	1
	HNTL-38-16	Lock Nut 3/8 - 16	1

DECAL LIST

7-845	Decal, Sweep Star P48	Hopper Sides
7-846	Decal, Roller Adjustment	Roller Height Adjustment Plates
16-088	Decal, Moving Parts / Hot	Reel
25-286	Decal, Pinch Point	Front Reel Deck, Rear Hopper
25-358	Decal, Smithco 2.25 x 12	Main Frame Sides
25-359	Decal, Smithco 3.25 x 17	Rear Hopper
27-097	Decal, Oil	Oil Tank
76-304	Decal, Crush Points	Hopper
76-305	Decal, Rotating Parts	Reel Housing
75-651	Hopper Lift Safety Bar	Rear frame Hopper Lift Safety Bars

QUICK REFERENCE REPLACEMENT PARTS

REPLACEMENT FILTERS

23-031 Hydraulic Oil Filter

SEAL KITS

76-242	Hydraulic Cylinder
76-242-01	Seal Kit
7-834	Hydraulic Cylinder
76-242-01	Seal Kit
7-833	Hydraulic Motor
7-833-01	O-ring Seal Kit
72-077	Hearing Protection

BATTERY (NOT SUPPLIED)

Battery (not supplied) U1-300 AMP

The Smithco Commercial Products Two-Year Limited Warranty

Smithco, Inc. (Smithco) warrants your 2007 or newer Smithco Commercial Product ("Product") purchased after January 1, 2007, to be free from defects in materials or workmanship for the period of time listed below. Where a warrantable condition exists, Smithco will repair the Product at no cost to you including diagnosis, labor (at the Smithco standard labor rate, subject to the Smithco flat rate schedule), and parts.

Warranty Duration is:

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

Owner Responsibilities:

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

Instructions for Obtaining Warranty Service:

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

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

Smithco Product Support Department
200 W Poplar PO Box 487
Cameron, Wisconsin 54822

Telephone: 1-800-891-9435 E-Mail: ProductSupport@smithco.com

Maintenance Parts:

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

Items/Conditions Not Covered:



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



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



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



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



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



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



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



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



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

Other Legal Disclaimers:

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

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

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

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

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

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

SMITHCO, INC.

Wayne, PA 19087

