### Parts & Service



& OPERATORS MANUAL

# TCV 2200

Super Truck Turf Care Vehicle Model 32-000 SN: DT2213

August 2013

**Product Support:** 

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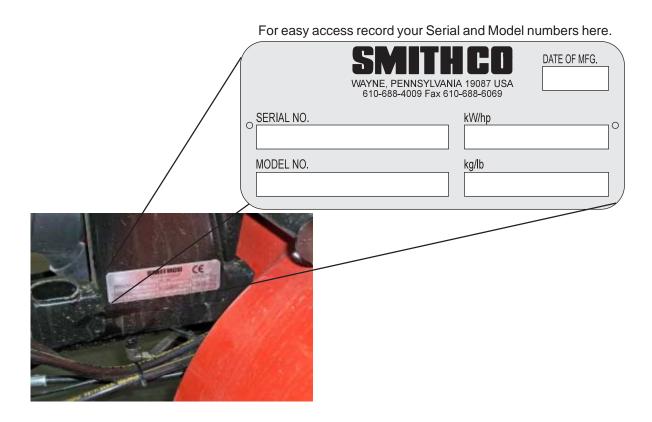
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Thank you for purchasing a **Smithco** product.

Read this manual and all other manuals pertaining to the Dump Truck carefully as they have 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 Dump Truck is located on the right main frame, to the rear of the front fender. Refer to engine manual for placement of engine serial number.



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.
- 2. Never allow anyone to operate or service the machine or its optional equipment 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 protective clothing and personal safety devises to protect your 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. Pick up all debris you can find before operating. 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. Fuel is highly flammable, handle with care.
- Keep engine clean. Allow the engine to cool before storing and always remove the ignition key.
- 11. Disengage all drives and set park brake before starting the engine.
- 12. Never use your hands to search for oil leaks. Hydraulic fluid under pressure can penetrate the skin and cause serious injury.
- 13. 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.
- 14. Before leaving operator's position:
  - A. Disengage all drives.
  - B. Set park brake.
  - C. Shut engine off and remove the ignition key.
  - D. If engine has to run to perform any maintenance keep hands, feet, clothing and all other parts of body away from moving parts.
- 15. Keep hands, feet and clothing away from moving parts. Wait for all movement to stop before you clean, adjust or service the machine.
- 16. Keep the area of operation clear of all bystanders.
- 17. Stop engine before making repairs/adjustments or checking/adding oil to the crankcase.
- 18. Use parts and materials supplied by **Smithto** only. Do not modify any function or part.
- 19. The tank is a confined space, take precaution.
- 20. When carrying passenger, be sure passenger is safely seated before operating machine.

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.



WEIGHTS AND DIMENSIONS

 Length
 108" (274 cm)

 Width
 60" (152 cm)

 Height w/ ROPS
 71" (180 cm)

 Inside Turn Circle
 120" (305cm)

 Outside Turn Circle
 230" (584 cm)

 Weight Empty
 1289 lbs (585 kg)

 Payload
 2200 lbs (998 kg)

SOUND LEVEL (DBA)

At ear level 96 dBA

**ENGINE** 

Make Briggs & Stratton

Model# 543477 Type / Spec# 0175G1 Horsepower 31 Hp (23 kw)

Fuel Unleaded 87 Octane

Gasoline Minimum

Cooling System Air Cooled
Lubrication System Full Pressure
Alternator 15 Amp

WHEELS & TIRE Front: (2) 22 x 11 - 10 Turf Type 18 psi (1.2 bar)

Rear: (2) 24 x 12 - 12 Turf Type 20 psi (1.4 bar)

**SPEED** 

Infinitely Variable 0-12 m.p.h. (0-19 kph)

BATTERY Automotive type 45 - 12 volt

BCI Group Size 45
Cold Cranking Amps 480 minimum
Ground Terminal Polarity Negative (-)
Maximum Length 9" (23 cm)
Maximum Width 5.38" (14 cm)
Maximum Height 9" (23 cm)

**FLUID CAPACITY** 

Crankcase Oil See Engine Manual Fuel 6 gallon (22.7 liters) Hydraulic Fluid 4 gallon (18 liters)

Grade of Hydraulic Fluid SAE 10W-40 API Service SJ or higher Motor Oil

### SET UP

The Dump Truck arrives from **Smithco** setup and ready for service. Depending on freight conditions battery may need to be installed.

- 1. Check the tire pressure. The front tires are 18 psi (1.2 bar) and rear tires are 20 psi (1.4 bar).
- 2. Battery is located at the rear of the machine behind the engine. This is a negative grounding system.

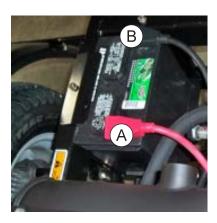


Connecting battery cables to the wrong post could result in personal injury and/or damage to the electrical system. Make sure battery and cables do not interfere or rub on any moving part. Connect red positive (+) cable (A) to battery first. When disconnecting remove black negative (-) cable (B) first.

- Check hydraulic fluid level in oil tank located on the right side of the machine. Remove cap and add SAE 10W-40 API Service SJ or higher motor oil if necessary. Fluid level should be about 2-2<sup>1</sup>/<sub>2</sub>" (5-6.4 cm) from the top of the tank when cold. DO NOT OVERFILL.
- Fill fuel tank, located on left side, with Unleaded 87 Octane gasoline (minimum). Your fuel tank is CARB compliant. Please check vent alignment in fill cup.



Fuel is flammable, caution must be used when storing or handling it. Do not fill fuel tank while engine is running or an enclosed area, fumes are explosive and dangerous to inhale. DO NOT SMOKE while filling the fuel tank. DO NOT OVERFILL

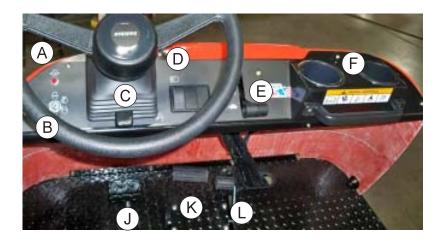




- 5. Machine should be greased before starting, refer to *Maintenance* for grease fitting location.
- 6. Read operating instructions before starting.

#### **TOWING**

When it is necessary to move the dump truck without the engine running, there are 2 things that need to be done. First, the bypass valve built into hydrostatic pump must be "open" by turning it 1/4 turn to open. The valve is located on the back side of the pump. An "open" valve allows fluid to pass through the wheels freely. When normal driven operation is desired, valve should be "closed" by turning it clockwise. Failure to "close" the valve with engine running means no power to wheels. Secondly, the hand brake needs to be manually released. The hand brake is located between the seats. Push back to release.



- A. Oil Light The oil light should come on when the ignition is on without the engine running and go out when the engine is running. The oil light will light when the oil pressure is low. If oil light should come on, shut engine off immediately and find the cause.
- B. Ignition Switch The ignition switch has three positions: Off Run Start.
- C. Tilt Steering Hold lever down and adjust steering wheel to desired position and release lever.
- D. Lights This rocker switch turns lights on by pushing on the top and off by pushing on the bottom.
- E. Hand Throttle The hand throttle is used to regulate engine speed.
- F. Cup Holder Holds 2 large cups.
- G. Park Brake The park brake is only a parking brake. Pull back to release, push forward to apply.
- H. Dump Box Lever The dump box lift lever is used to raise and lower the dump box. Pull back to raise the dump box. Push forward to lower the dump box.
- I. Choke The choke is used in starting the engine. Pull choke out to close choke plate when starting a cold engine. Push in when engine starts. A warm engine may not require "choking" to start.
- J. Brake Pedal Operates the hydraulic brakes on the front axle.
- K. Forward Pedal This pedal controls ground speed. Varying the amount of movement of the pedal will vary the ground speed.
- L. Reverse Pedal This pedal controls reverse ground speed.
- M. Hour Meter The hour meter indicates hours of machine operation. It operates only when the ignition switch is on. Located on left ROP's mount.





### **OPERATION**

Before operating the Smithco Dump Truck, become familiar with all controls and functions. Also complete all maintenance requirements and read all safety warnings. Knowing the Dump Truck thoroughly, how it operates, and by doing the prescribed maintenance steps, you can expect trouble free operation for years to come.

#### SAFFTY

Operator needs to always be the concern of an operator of a moving vehicle or any machine with moving parts.

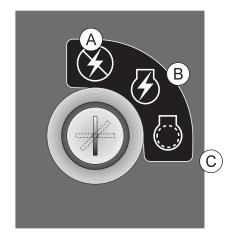
- 1. Keep all shields and guards in place.
- 2. Keep the parking brake engaged any time the operator is away from the vehicle or whenever service is performed.
- 3. Always wear the necessary protective clothing and equipment.
- 4. Turn engine off when refueling or performing maintenance not specifically requiring engine power.

#### DAILY CHECKLIST

- 1. Check the engine oil level. Add as needed. **DO NOT OVERFILL**. Refer to engine owner's manual for oil grade and procedure.
- 2. Tire pressure should be 18 psi (1.2 bar) on front and 20 psi (1.4bar) on back.
- 3. Inspect the electrical system and battery cables for loose connections or frayed wiring. Replace any faulty equipment or tighten if loose.
- 4. Check hardware for loose or missing nuts, bolts, screws, etc., and tighten or replace as needed.
- 5. Inspect hydraulic lines for damage or leaks. Never use hands to inspect for leaks.
- 6. Check the hydraulic fluid level. The hydraulic fluid tank is located on the right side of the machine. The fluid level should be 2"-2½" (5 6.4 cm) from the top of the tank when cold. Use only SAE 10W-40 API Service SJ or higher Motor Oil.
- 7. Inspect the steering, throttle and shift linkages for good hookups and clear travel.
- 8. Check controls for smooth, proper working operation. Lubricate as needed
- 9. Check anti-vibration mounts on engine frame.

#### STARTING THE ENGINE

- 1. The ignition switch is located on the dashboard. Insert the key (A) and turn clockwise to (C) until the engine starts. Release the key and it will return to the run position (B).
- Allow engine to idle and warm up before selecting direction of travel.



#### STOPPING THE ENGINE



If the engine has been running under high power, let it run at slow idle speed a few minutes to cool the engine down, before turning the ignition switch to the OFF position.

- 1. Move the throttle lever to "slow" and turn ignition key to the "off" position.
- 2. Remove the ignition key and engage the park brake.



Never leave the vehicle unattended with the engine running. Always bring the vehicle to a complete stop, engage park brake, turn key off and remove key.



#### HILLSIDE OPERATION

Do NOT stop or start suddenly on any slope. Be especially cautious when changing direction. Do NOT operate on slopes greater than 10°.

#### **BATTERY**

Batteries normally produce explosive gases which can cause personal injury. Do not allow flames, sparks or any ignited object to come near the battery. When charging or working near battery, always shield your eyes and always provide proper ventilation.

Battery cable should be disconnected before using "Fast Charge".

Charge battery at 15 amps for 10 minutes or 7 amps for 30 minutes. Do not exceed the recommended charging rate. If electrolyte starts boiling over, decrease charging.

Always remove grounded (-) battery clamp first and replace it last. Avoid hazards by:

- 1. Filling batteries in well-ventilated areas.
- 2. Wear eye protection and rubber gloves.
- 3. Avoid breathing fumes when electrolyte is added.
- 4. Avoid spilling or dripping electrolyte.



Battery Electrolyte is an acidic solution and should be handled with care. If electrolyte is splashed on any part of your body, flush all contact areas immediately with liberal amounts of water. Get medical attention immediately.

JUMP STARTING

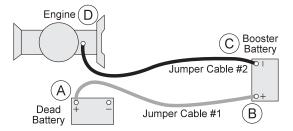


Use of booster battery and jumper cables. Particular care should be used when connecting a booster battery. Use proper polarity in order to prevent sparks.

To jump start (negative grounded battery):

- 1. Shield eyes.
- 2. Connect ends of one cable to positive (+) terminals of each battery, first (A) then (B).
- 3. Connect one end of other cable to negative (-) terminal of "good" battery (C).
- 4. Connect other end of cable (D) to engine block on unit being started (NOT to negative (-) terminal of battery)

To prevent damage to other electrical components on unit being started, make certain that engine is at idle speed before disconnecting jumper cables.



### **MAINTENANCE**



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

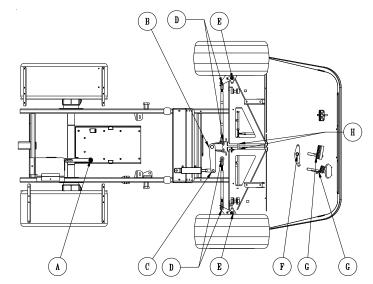


Use all procedures and parts prescribed by the manufacturer's. Read the engine manual before operation.

#### LUBRICATION

Use No. 2 General purpose lithium base grease and lubricate every 100 hours. The dump truck has 14 grease fittings.

- A. One on the tensioner arm.
- B. One onthe steering relay.
- C. One on steering ram.
- D. One on both ends of steering arms (4).
- E. One on each front spindle.
- F. One on the forward/reverse relay.
- G. One on each pedal mount (2).
- H. One on each control arm



#### **ELECTRICAL CONNECTIONS**

Use dielectric grease on all electrical connections.

#### TIRE PRESSURE

Caution must be used when inflating a low tire to recommended pressure. Over inflating can cause tires to explode. Front tires should be 18 psi (1.2bar) and rear tires should be 20 psi (1.4bar). Improper inflation will reduce tire life considerably.

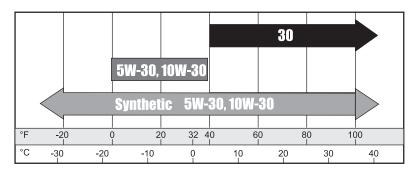
#### **ENGINE OIL**

Change and add oil according to charts below. Do not overfill. Use a high quality detergent oil. For Briggs engine use oil classified "For Service SJ or higher" SAE 30 oil.

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

The use of non-synthetic multi-viscosity oils in temperatures above 40°F (4° C) will result in higher than normal oil consumption. Check oil level more frequently when using a multi-viscosity oil.

Check the engine oil before starting or more than 5 minutes after stopping the engine. If oil level is low, remove oil filler plug and add new oil to the prescribed level. Do not overfill. Engine oil should be MIL-L2104C or have properties of API Classifications CD grades or higher. Change the type of Engine oil according to the ambient temperature.



Starting Temperature Range Anticipated Before Next Oil Change

#### HYDRAULIC OIL

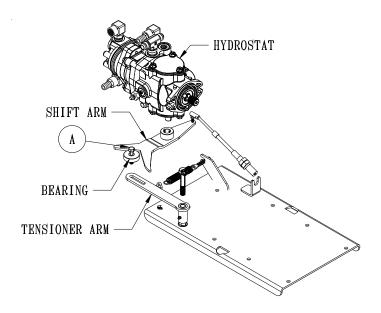
- 1. Use SAE 10W-30 API Service SJ or higher motor oil.
- 2. For proper warranty, change oil every 500 hours or annually, which ever is first.
- 3. Oil level should be 2-2½" (5-6.4cm) from top of the tank when fluid is cold. Do not overfill.
- 4. After changing oil, run the machine for a few minutes. Check oil level and for leaks.
- Always use extreme 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.
- 6. If the natural color of the fluid has become black or smells burnt, it is possible that an overheating problem exists.
- 7. If fluid becomes milky, water contamination may be a problem.
- 8. If either of the above conditions happen, change oil immediately after fluid is cool and find the cause. Take fluid level readings when the system is cold.
- 9. In extreme temperatures you can use straight weight oil. We recommend SAE 30W API Service SG 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.
- 10. Oil being added to the system must be the same as what is already in the tank. Mark the tank fill area as to which type you put in.

### *ADJUSTMENTS*

#### WHFFI CRFFP

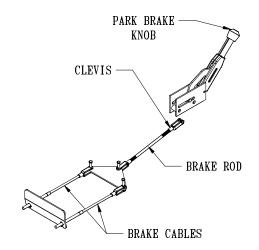
"Creep" is when the engine is running and hydrostatic transmission is in neutral, but due to inadequate alignment, wheels still move. Do the following procedure to stop this motion.

- Lift up and support machine so rear wheels are off the ground and can turn freely.
- 2. In the engine compartment, the hydrostatic pump is at the rear. The shift arm is on the bottom of the pump. The tensioner arm has a bearing that rides in the vee of the shift arm. Loosen bolt
- 3. With engine running, move bearing so it centers on the shift arm and 'wheel creep' stops.
- 4. Tighten all fasteners and test by using foot pedal linkage to see that 'creep' is removed.
- 5. Turn engine off and lower machine.



#### PARK BRAKE ADJUSTMENT

By turning knob on end of park brake lever you can tighten or loosen brake a small amount. To tighten turn the knob clockwise. To loosen turn counter clockwise. If this is not enough turn clevis on brake rod to adjust length of brake cable.





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

NOTE:

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

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.

Maintenance Service Interval	Maintenance Procedure
After the first Conserving hours	Torque the wheel lug nuts. (64-74 ft/lb (87-100 Nm))
After the first 5 operating hours	Change the engine oil and filter.
After the first 20 operating hours	Replace hydraulic filter
	Check the engine oil.
	Check the hydraulic fluid level.
Defere each use daily	Check the tire pressure.
Before each use daily	Check condition of hydraulic hoses and fittings.
	Inspect and clean the machine.
	Inspect cooling system.
5	Check the battery fluid level and cable connections.
Every 25 hours	Change oil when operating under heavy load or high
	Change the engine oil and filter.
	Change hydraulic filter
	Check engine for leaks or loose parts.
5	Check air cleaner.
Every 100 hours	Check tire pressure (5 psi (.035 bar)).
	Torque the wheel lug nuts. (64-74 ft/lb (87-100 Nm))
	Grease Machine.
	Check belt tension (where needed)
Every 200 Hours	Torque the wheel lug nuts. (64-74 ft/lb (87-100 Nm))
	Change oil filter
Every 250 hours	Change hydraulic filter
	Clean battery terminals
Every 400 hours	Check spark plugs
	Lubricate machine
	Visual inspection of machine and hydraulic hoses
Every 500 hours or yearly	Change oil.
Every 500 hours or yearly	Torque lug nuts.
	Check battery terminals and electrolyte level.
	Change all filters.

## END USER SERVICE CHART

### Duplicate this page for routine use

Maintence Check Item	For the week of:						
Maintence Check item	Mon	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Check the Safety Seat Switch							
Check Steering Operation							
Check the fuel level							
Check the engine oil level.							
Check the condition of the air filter							
Clean the engine cooling fins.							
Check for unusual engine noises							
Check the hydraulic oil level							
Check hydraulic hoses and fittings for damage							
Check for fluid leaks.							
Check the tire pressure (20-30 psi)							
Check the Instrumentation							
Inspect electrical system for frayed wires							
Check neutral start							
Change oil filter.							
Change oil.							
Lubricate Machine							
Ensure all warning decals are intact.							

Areas of Concern				
Inspection Performed by:	Inspection Performed by:			
Item	Date	Information		

#### **UP TO ONE MONTH**

- While engine is running, treat upper cylinders by spraying engine fogging agent into the air intake (NOT through air cleaner) for about two minutes. Fogging agent can be obtained from your local after market supplier. Open throttle for short burst of speed, shut off ignition and allow engine to come to a stop while continuing to spray fogging agent into air intake.
- 2. Leave spark plugs in holes or seal spark plug holes with suitable threaded metal plugs and cover all openings into engine with suitable non-hygroscopic material.
- 3. Store machine indoors in dry area.

#### **TWO MONTHS**

(all of the above plus)

- 4. Clean the exterior surfaces of the engine.
- 5. Change the oil and filter while the engine is still warm from operation.
- 6. Remove battery from the engine, adjust the electrolyte level, and recharge it. Store battery in a dry dark place (NOT directly on cement).

#### **EXTENDED STORAGE**

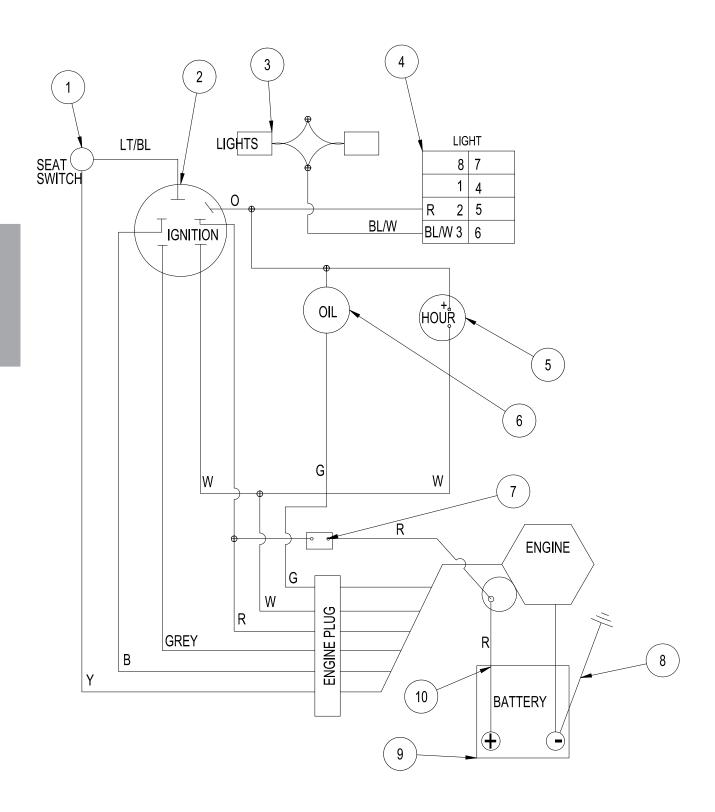
(all of the above plus)

- 7. Check for any damaged parts or missing decals. Replace as needed.
- 8. Drain crankcase completely and refill with recommended engine oil or equivalent.
- 9. Run engine until completely out of gasoline, then restart and run on stabilizer mixed with unleaded gasoline for at least 10 minutes.
- 10. Lubricate all grease points.
- 11. Seal all openings in engine and accessories with non-hygroscopic material. Mask off all areas to be used for electrical contact.
- 12. Tape all openings and make sure all surfaces are dry. Then spray all taped openings, all engine accessories including ignition wiring, and all exterior surfaces of engine with Insulation Compound.
- 13. Put blocks or stands under the machine to take weight off tires.

#### **AFTER STORAGE**

- 1. Check for any damaged parts or missing decals. Replace as needed.
- 2. Lubricate all grease points.
- 3. Clean exterior surface of engine.
- 4. Replace spark plugs if previously removed.
- 5. Remove all tape and obstructions from exterior engine surfaces.
- 6. Charge and replace battery.
- 7. Check tire pressure.
- 8. Remove blocks or supports from under the machine.
- 9. Check engine oil level and coolant level and lubricate all grease points.
- 10. Fill fuel tank.
- 11. Check belt tension.
- 12. Run engine approximately 5 minutes before putting the engine under load.

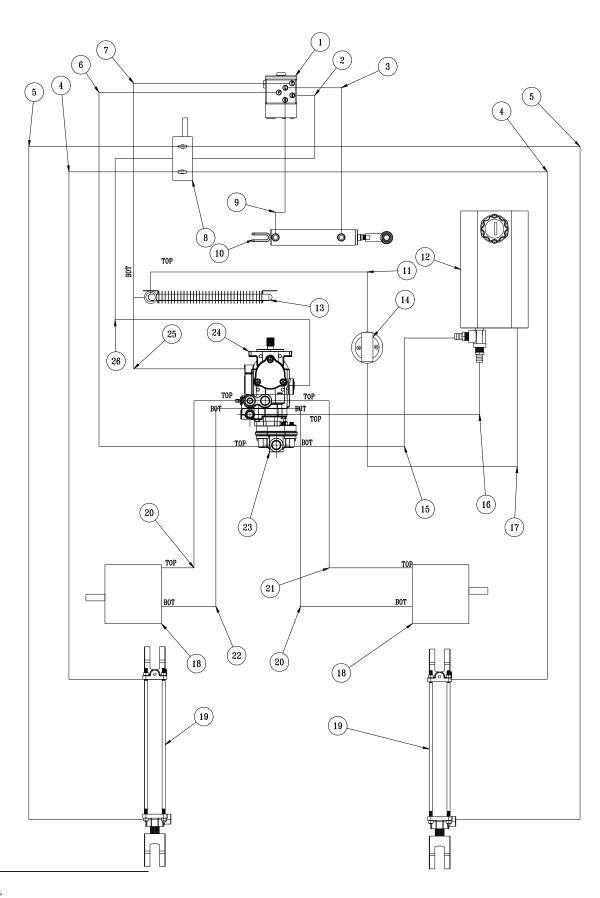
Use dielectric grease on all electrical connections.





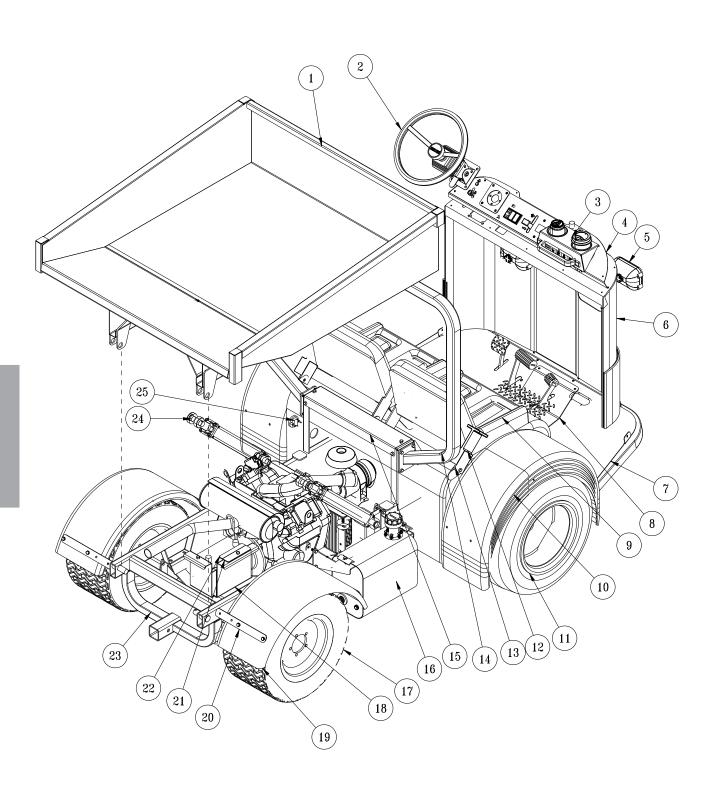
### WIRING DIAGRAM PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	14-292	Seat Switch	1
2	13-488	Ignition Switch	1
3	32-014	Head Lights	2
4	15-727	Switch Actuator	1
	15-782	Rocker Switch	1
5	12-017	Hour Meter	1
6	50-359	Warning Light - Oil	1
7	8975	30 AMP Breaker	1
	8977	Boot	1
8	76-327	Negative Battery cable	1
9	22-073	Battery	1
10	50-323	Red Battery Cable	1
	32-087	Wire Harness	1



## HYDRAULIC DIAGRAM PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	34-103	Orbitrol	1
2	32-069	Hydraulic Hose - 74"	1
3	32-071	Hydraulic Hose - 87"	1
4	32-065	Hydraulic Hose - 39.5"	2
5	32-066	Hydraulic Hose - 56.5"	2
6	32-072	Hydraulic Hose - 144"	1
7	32-070	Hydraulic Hose - 116.5"	1
8	31-043	Single Bank Valve	1
9	32-073	Hydraulic Hose - 94"	1
10	10-554	Hydraulic Cylinder	1
	14-529	Seal Kit	1
	18-168	Straight Thread Elbow	2
11	32-067	Hydraulic Hose - 24"	1
12	60-473	Oil Tank	1
	13-586-03	Filler Neck	1
	13-747	Filler Breather	1
13	15-624	Oil Cooler	1
	18-168	Straight Thread Elbow	2
14	23-006	Oil Filter	1
	23-031	Replacement Filter	1
15	8832-32	3/4" Suction Hose - 32"	1
	18-040	Hose Clamp	2
16	8832-28	3/4" Suction Hose - 28"	1
	18-040	Hose Clamp	2
17	8917-11	5/8" Suction Hose - 11"	1
	18-040	Hose Clamp	2
18	76-238	Wheel Motors	2
	34-122	Short Elbow	4
19	76-242	Hydraulic Cylinders	2
	76-242-01	Seal Kit	1
	23-167	Male Elbow	2
20	32-077	Hydraulic Hose - 19"	2
21	32-075	Hydraulic Hose - 24"	1
22	32-074	Hydraulic Hose - 17.5"	1
23	76-197	Gear Pump	1
24	76-482	Hydrostatic Pump	1
	23-145	O-ring	1
25	32-068	Hydraulic Hose - 25"	1
26	32-076	Hydraulic Hose - 72.5"	1

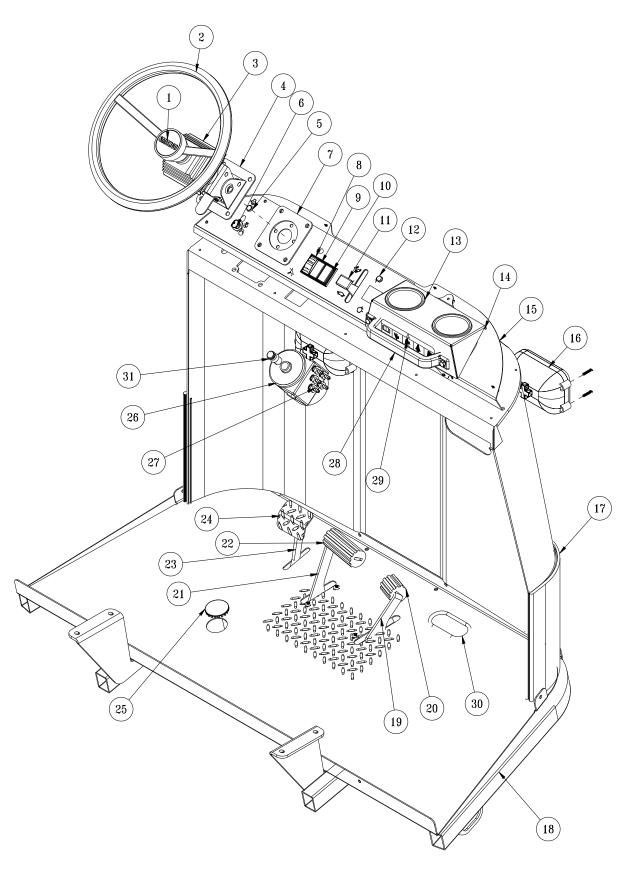




## MAIN FRAME PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	32-001	Gondola Box (optional)	1
	32-002	Tailgate Box (optional)	1
	32-003	Flatbed (optional)	1
2	13-718	Steering Wheel	1
3	32-105	Cup Box	1
4	32-017	Dashboard	1
	32-018	Decal, Dashboard	1
5	32-014	Headlight	2
6	32-030	Nose Cone	1
7	32-061	Floorboard	1
8	32-055	Skid Plate	1
	HB-516-18-250	Bolt $\frac{5}{16}$ - 18 x $\frac{2^{1}}{2}$	2
	HNFL-516-18	Flange Whiz Lock Nut 5/16 -18	2
9	14-270	Gray Seat	2
	14-292	Seat Switch	2
10	32-031	Front Fender (fiberglass)	1
	32-064	Seat Pan	1
11	43-124	Tire and Wheel	2
	43-123-01	Tire 22 - 11 x 10	2
	43-058-01	Wheel	2
12	76-198-03	Seat Belts	2
	HBC-516-18-100	Carriage Bolt <sup>5</sup> / <sub>16</sub> - 18 x 1	4
	HNFL-516-18	Flange Whiz Lock Nut 5/16 - 18	4
13	32-046	Restraint Bar	1
14	32-027	ROPS	1
	HB-38-16-100	Bolt <sup>3</sup> / <sub>8</sub> - 16 x 1	8
	HNTL-38-16	Lock Nut 3/8 - 16	8
15	32-063	Cover Plate	1
	HSTP-516-18-075	Truss Head Screw 5/16 -18 - 3/4	6
	HNFL-516-18	Flange Whiz Lock Nut 5/16 - 18	6
16	60-473	Oil Tank	1
17	10-114	Tire and Wheel	2
	10-114-01	Tire 24 - 12 x 12	2
	10-114-02	Wheel	2
18	32-053	Battery Box	1
19	10-168	Rear Fender	2
20	32-111	Fender Mount	2
21	32-012	Battery Clamp	1
22	22-073	Battery	1
23	32-015	Main Frame	1
24	76-242	Cylinders	2
	76-242-01	Seal Kit	
	23-167	Male Elbow	4
	32-042	Spacer	2
25	12-017	Hour Meter	1



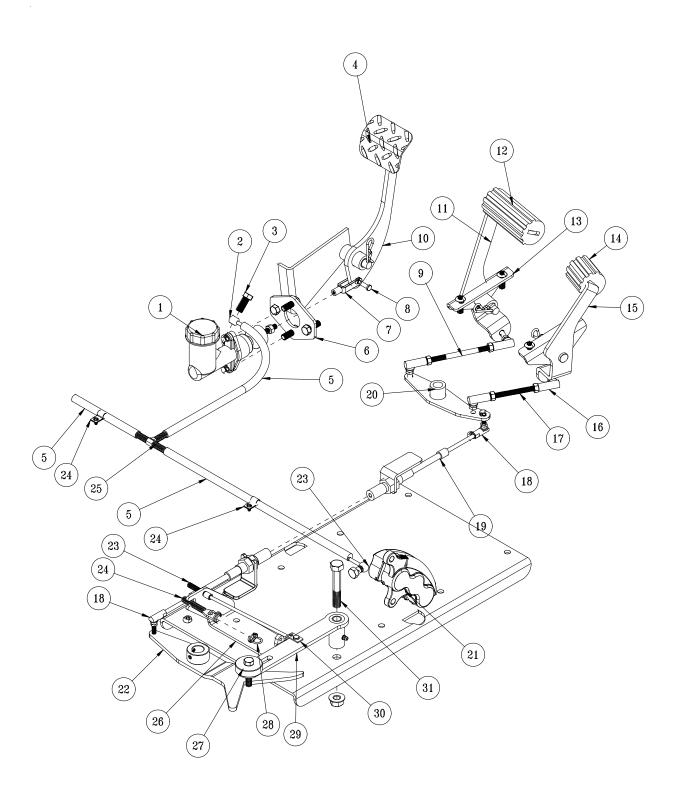




## NOSE CONE PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	13-726	Center Cap	1
	27-077	Decal, Smithco Round	1
2	13-718	15" Steering Wheel	1
3	76-364	Square Boot	1
4	76-362	Mini Tilt Steering	1
5	50-359	Warning Indicator Light	1
6	13-488	Ignition Switch	1
7	32-107	Tilt Column Spacer	1
8	15-725	Panel Mount End	1
	15-727	Switch Actuator, No Light	1
	15-782	Rocker Switch, Unlit	1
9	15-729	Panel Mount Middle	1
	15-730	Panel Mount Plug	1
10	15-725	Panel Mount End	1
	15-730	Panel Mount Plug	1
11	32-034	Throttle Cable	1
	HSM-10-32-100	Machine Screw #10-32 x 1	2
	HNFL-10-32	Flange Lock Nut #10 -32 x 1	2
12	32-093	Throttle Bracket	1
	HSTP-516-18-100	Phillips Machine Screw <sup>5</sup> / <sub>16</sub> - 18 x 1	2
	HNFL-516-18	Flange Lock Nut <sup>5</sup> / <sub>16</sub> - 18 x 1	2
13	15-781	X-Large Drink Holder	2
14	32-105	Cup Box	1
	HSM-10-32-100	Machine Screw #10-32 x 1	3
	HNFL-10-32	Flange Lock Nut #10 -32 x 1	3
15	32-017	Dashboard	1
	32-018	Decal, Dashboard	1
16	32-014	Head Light	2
	HSM-10-32-100	Machine Screw #10-32 x 1	8
	HNFL-10-32	Flange Lock Nut #10 -32 x 1	8
17	32-030	Nose Cone	1
	34-147	Decal, Smithco Logo	1
18	32-061	Floorboard	1
19	32-039	Reverse Pedal	1
20	48-132	Pedal Grip Short	1
21	32-038	Forward Pedal	1
22	48-066	Pedal Grip	1
23	32-044	Brake Pedal Arm	1
24	32-028	Brake Pedal	1
25	25-199	Plug Button	1
26	34-103	Orbitrol	1
27	18-169	Straight Fitting	5
28	76-443	Black Handle	1
	HSTP-516-18-100	Phillips Machine Screw <sup>5</sup> / <sub>16</sub> - 18 x 1	2
	HNFL-516-18	Flange Lock Nut <sup>5</sup> / <sub>16</sub> - 18 x 1	2
29	32-085	Decal, Warning Strip	_ 1
30	8803-12	Trim	1
31	48-187	Stub Shaft	1



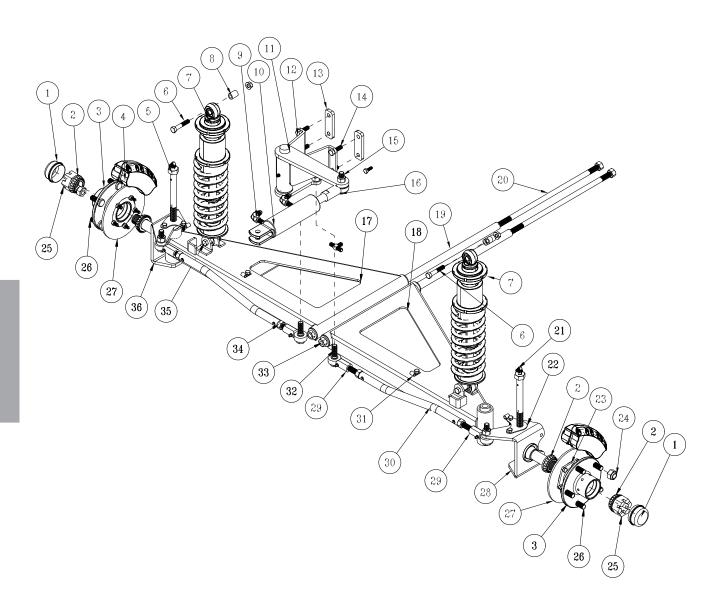




## PEDAL LINKAGE PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	32-084	Master Cylinder	1
2	32-082	<sup>3</sup> / <sub>8</sub> Banjo Adapter	1
3	32-083	<sup>3</sup> / <sub>8</sub> Banjo Bolt	1
4	32-028	Brake Pedal	1
5	32-089	30" Brake Hose	3
6	32-080	Brake Cylinder Adapter	1
O	HB-516-18-075	Bolt <sup>5</sup> / <sub>16</sub> -18 x <sup>3</sup> / <sub>4</sub>	2
	HNFL-516-18	Flange Whiz Lock Nut 5/16 - 18	2
	HCP-12-200	Clevis Pin <sup>1</sup> / <sub>2</sub> x 2	1
	HMB-12-14	Machine Bushing 1/2 x 14GA	1
	HCP-516-100	Clevis Pin <sup>5</sup> / <sub>16</sub> x 1	1
	HP-18-100	Cotter Pin <sup>1</sup> / <sub>8</sub> x <sup>3</sup> / <sub>4</sub>	2
7	11-100	Linkage Yoke, <sup>5</sup> / <sub>16</sub>	1
8	HCP-516-100	Clevis Pin <sup>5</sup> / <sub>16</sub> x 1	1
Ü	HP-18-075	Cotter Pin 1/8 x 3/4	1
9	32-117	Forward Rod	1
10	32-044	Brake Pedal Arm	1
11	32-038	Forward Pedal	1
12	48-066	Pedal Grip	1
13	32-040	Pedal Mount	2
.0	HSTP-516-18-075	Truss Head Screw 5/16 -18 x 3/4	4
	HNFL-516-18	Flange Whiz Lock Nut 5/16 - 18	4
14	48-132	Pedal Grip Short	1
15	32-039	Reverse Pedal	1
16	21-462	Ball Joint, <sup>5</sup> / <sub>16</sub> - 24	4
	HN-516-24	Nut <sup>5</sup> / <sub>16</sub> - 24	8
17	32-113	Pedal Link	1
18	18-115	Ball Joint, 1/4 NF	2
	HN-14-20	Nut 1/4 - 20	2
19	32-023	Push Pull Cable	1
20	32-037	Forward/Reverse Relay	1
21	32-025	Razorback Front Calipers	2
22	32-045	Control Arm	1
23	32-091	10MM Banjo Adapter	2
	32-092	10MM Banjo Bolt	2
24	17-154	Cable Clamp	6
	HB-14-20-075	Bolt <sup>1</sup> / <sub>4</sub> -20 x <sup>3</sup> / <sub>4</sub>	6
	HNFL-14-20	Flange Whiz Lock Nut 1/4-20	6
25	32-090	Tee	1
26	32-106	Spring Mount	1
	HB-716-14-100	Bolt <sup>7</sup> / <sub>16</sub> -14 x 1	2
	HW-716	Washer 7/16	2
	HN-716-14	Nut <sup>7</sup> / <sub>16</sub> - 14	2
27	14-266	Ball Bearing	1
28	29-118	Tension Spring	1
29	32-035	Tension Arm	1
30	17-155	Cable End	1
31	HB-12-13-300	Bolt $\frac{1}{2}$ -13 x 3	1
	HNFL-12-13	Flange Whiz Lock Nut 1/2 - 13	2

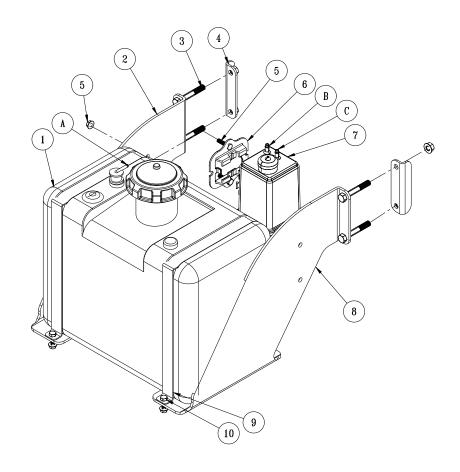




## FRONT AXLE PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1*	80-167	Dust Cap	2
2*	11-043	Bearing	4
_	11-041	Seal	2
3*	32-114	Front Hub (includes all * items)	2
4	32-025	Razorback Front Caliper	1
7	32-025-01	Pad	1
5	32-025-01	Grease Bolt	2
6		Bolt <sup>3</sup> / <sub>8</sub> - 16 x 2	4
O	HB-38-16-200		
-	HNTL-38-16	Lock Nut <sup>3</sup> / <sub>8</sub> -16	4
7	32-086	Coil-Over Shock	2
8	32-104	Spacer	4
9	18-168	Straight Thread Elbow	2
10	10-554	Hydraulic Cylinder	1
11	32-041	Steering Relay	1
12	HB-38-16-150	Bolt $^{3}/_{8}$ - 16 x $1^{1}/_{2}$	4
	HNTL-38-16	Lock Nut <sup>3</sup> / <sub>8</sub> -16	4
13	32-116	Steering Relay Spacer	2
14	HB-38-16-150	Bolt <sup>3</sup> / <sub>8</sub> - 16 x 1 <sup>1</sup> / <sub>2</sub>	4
	HNTL-38-16	Lock Nut 3/8-16	4
15	HB-58-11-250	Bolt <sup>5</sup> / <sub>8</sub> - 11 x 2 <sup>1</sup> / <sub>2</sub>	1
10	HNTL-58-11	Lock Nut <sup>5</sup> / <sub>8</sub> -11	1
16	18-154	Rod End	1
17	32-059	LH Control Arm	1
17			2
40	10-025	Bushing	
18	32-058	RH Control Arm	1
	10-025	Bushing	2
19	32-097	Pivot Sleeve	2
20	32-011	Suspension Pivot Shaft	2
21	HG-14-28-90	90° Grease Zerk	2
22	32-115	Hose Clamp Mount	2
	HB-14-20-075	Bolt <sup>1</sup> / <sub>4</sub> - 20 x <sup>3</sup> / <sub>4</sub>	4
	HNFL-14-20	Flange Lock Nut 1/4 - 20	4
23*	32-101	Flange	2
24*	HNL-12-20	Lug Nut 1/2 - 20	10
25	HNAR-100-14	Slotted Jam Nut 1 -14	2
26*	27-022-02	Stud, 1/2 - 20	10
27	32-100	Brake Rotor	2
28	32-098	Right Spindle	1
20	32-095	Spindle Sleeve	1
29	80-006	Rod End w/ Grease Fitting	4
			2
30	32-047	Steering Link	
31	17-154	Brake Cable Clamp	6
	HB-14-20-075	Bolt <sup>1</sup> / <sub>4</sub> - 20 x <sup>3</sup> / <sub>4</sub>	6
	HNFL-14-20	Flange Lock Nut 1/4 - 20	6
32	HB-12-13-200	Bolt $\frac{1}{2}$ - 13 x 2	4
	HNFL-12-13	Flange lock Nut 1/2 - 13	4
	HMB-12-14	Machine Bushing 1/2 - 14GA	8
33	HNFL-12-13	Flange lock Nut 1/2 - 13	2
34	HN-12-13	Nut $\frac{1}{2}$ -13	4
35	HB-38-16-200	Bolt <sup>3</sup> / <sub>8</sub> - 16 x 2	4
-	HNTL-38-16	Lock Nut <sup>3</sup> / <sub>8</sub> -16	4
	32-104	Spacer	4
36	32-099	Left Spindle	1
00	32-095	Spindle Sleeve	1
	J <u>∠</u> -U3J	opinale oleeve	I

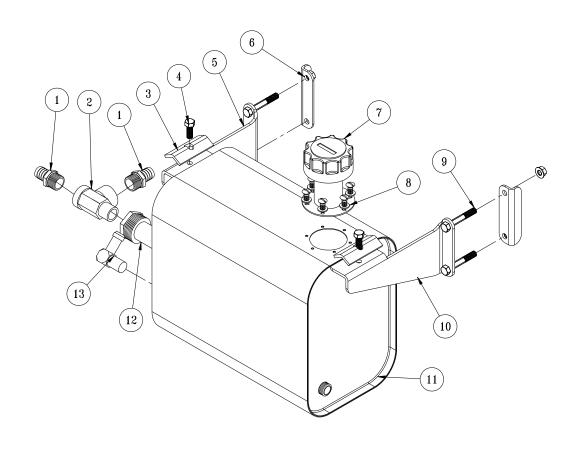




### GAS TANK PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	15-838	CARB Gas tank	1
2	32-052	LH Gas Tank Mount	1
3	HB-38-16-250	Bolt <sup>3</sup> / <sub>8</sub> - 16 x 2 <sup>1</sup> / <sub>2</sub>	4
	HNFL-38-16	Flange Lock Nut 3/8 - 16	4
4	32-050	Tank Mount Bracket	2
5	HB-516-18-075	Bolt <sup>5</sup> / <sub>16</sub> - 18 x <sup>3</sup> / <sub>8</sub>	2
	HNFL-516-18	Flange Lock Nut 5/16 -18	2
6	8-688	Carbon Canister Mount	1
7	8-689	Carbon Canister	1
8	32-051	RH Gas Tank Mount	1
9	32-081	Tank Strap	2
10	HB-516-18-100	Bolt <sup>5</sup> / <sub>16</sub> -18 x 1	4
	HNFL-516-18	Flange Lock Nut <sup>5</sup> / <sub>16</sub> - 18	4
А	8800-51	Fuel Hose (tank to fuel filter on engine)	1
	18-186	Hose Clamp	2
В	8800-38	Fuel Hose (CARB canister to air cleaner)	1
	18-186	Hose Clamp	2
С	8800-10	Fuel Hose (CARB Canister to vent on tank neck)	1
	18-186	Hose Clamp	2

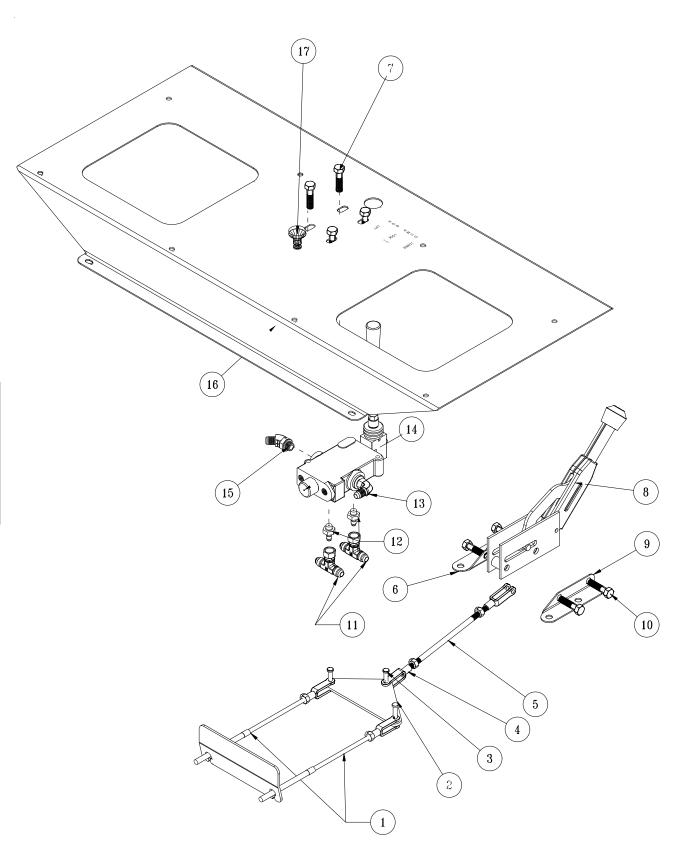




## OIL TANK PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	18-249	Barb Fitting	2
2	18-093	Straight Tee	1
3	75-792	Tank Hold Down	2
4	HB-516-18-125	Bolt <sup>5</sup> / <sub>16</sub> - 18 x 1 <sup>1</sup> / <sub>4</sub>	2
	HNFL-516-18	Flange Lock Nut 5/16 - 18	2
5	32-049	LH Tank Mount	1
6	32-050	Tank Mount Bracket	2
7	13-747	Filler Breather	1
8	13-586-03	Filler Neck	1
9	HB-38-16-250	Bolt <sup>3</sup> / <sub>8</sub> - 16 x 2 <sup>1</sup> / <sub>2</sub>	4
	HNFL-38-16	Flange Lock Nut 3/8 - 16	4
10	32-048	RH Tank Mount	1
11	60-473	Oil Tank	1
12	60-213	Strainer	1
13	23-142	Connector	1

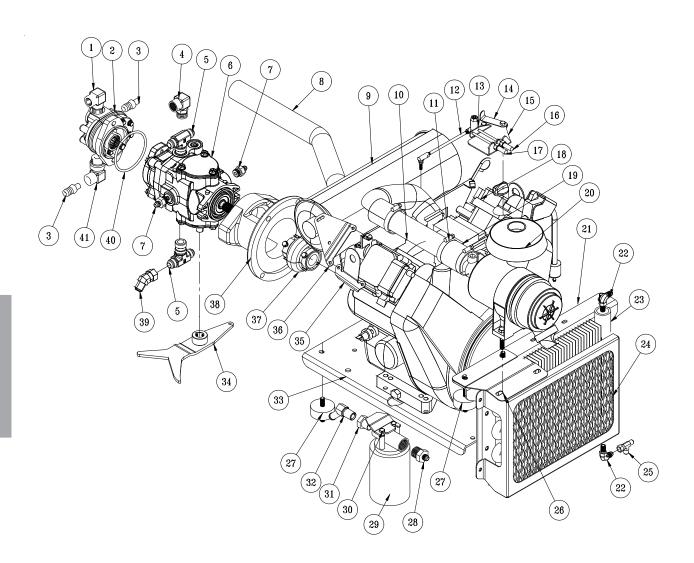






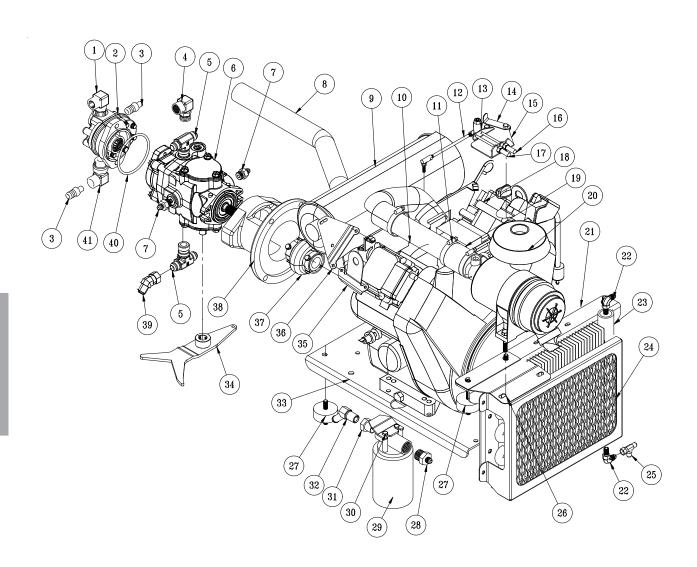
## SEAT PANEL PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	10-516	Brake Cable	2
2	32-079	Park Brake Equalizer	1
3	HCP-516-100	Clevis Pin 5/16 x 1	3
	HP-18-075	Cotter Pin <sup>1</sup> / <sub>8</sub> x <sup>3</sup> / <sub>4</sub>	3
4	11-100	Linkage Yoke, 5/16	3
5	32-013	Park Brake Rod	1
6	32-057	LH Park Brake Mount	1
7	HSTP-516-18-075	Truss Head Screw 5/16 -18 x 3/4	2
	HNFL-516-18	Flange Whiz Lock Nut 5/16 - 18	2
8	60-106	Brake Lever	1
9	32-056	RH Park Brake Mount	1
10	HB-38-16-125	Bolt <sup>3</sup> / <sub>8</sub> -16 x 1 <sup>1</sup> / <sub>4</sub>	4
	HNTL-38-16	Lock Nut <sup>3</sup> / <sub>8</sub> - 16	4
11	32-020	<sup>3</sup> / <sub>8</sub> Branch Tee	2
12	18-169	<sup>3</sup> / <sub>8</sub> Adapter	2
13	18-168	3/8 Straight Thread Elbow	1
14	31-043	Single Bank Hydraulic Valve	1
	78-417	Handle	1
15	18-188	45° Elbow	1
16	32-064	Seat Pan	1
17	80-020	Choke Cable	1



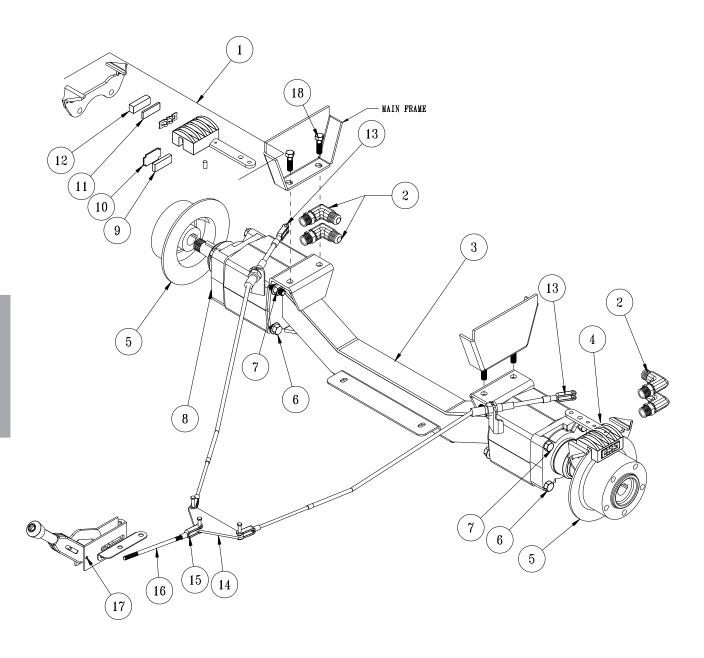
REF#	PART#	DESCRIPTION	QUANTITY
1	32-022	Straight Thread Elbow	1
2	76-197	Gear Pump	1
3	18-133	Barb Fitting	2
4	23-130	Elbow	_ 1
5	32-021	Straight Thread Branch Tee	2
6	76-482	Hydrostatic Pump	1
7	18-241	Straight Thread Connector	2
8	32-024	Tail Pipe	1
O	50-394	Muffler Clamp	1
9	76-447	Center Mount Muffler	1
10	32-019	Air Inlet Tube	1
10			3
	18-123	Hose Clamp	
12	32-133	Throttle link	1
	18-115	Rod End	2
40	HN-516-24	Nut <sup>5</sup> / <sub>16</sub> -24	4
13	32-130	Throttle Relay	1
14	32-134	Limit Arm	1
15	32-131	Cable Mount	1
16	15-310	Manual Throttle	1
17	32-023	Foot Controlled Throttle	1
	32-132	Compression Spring	1
18	76-484	Engine, Briggs & Stratton 31 HP	1
	76-270	Throttle Cable Mount	1
	76-466-01	Stub Shaft	1
	21-161	Wire Block	1
19	32-088	2" Heater Hose	1
20	32-112	Air Cleaner	1
	42-076-03	Filter Element	1
21	32-054	Oil Cooler Plate	1
22	18-168	Straight Thread Elbow	2
23	15-624	Oil Cooler	1
24	32-036	Oil Cooler Guard	1
	HBFL-516-18-075	Flange Bolt <sup>5</sup> / <sub>16</sub> -18 x <sup>3</sup> / <sub>4</sub>	4
	HNFL-516-18	Flange Whiz Lock Nut 5/16 -18	4
25	18-190	Tee	1
26	32-032	Air Cleaner Mount	1
-	HBFL-516-18-075	Flange Bolt 5/16 -18 x 3/4	1
	HNFL-516-18	Flange Whiz Lock Nut 5/16 -18	1
27	11-021	Engine Mount	4
	HN-38-24	Nut <sup>3</sup> / <sub>8</sub> - 24	4
	HWL-38	Lock Washer <sup>3</sup> / <sub>8</sub>	4
	HW-38	Washer <sup>3</sup> / <sub>8</sub>	4
28	23-183	Male Connector	1
29	23-006	Oil Filter	1
20	23-031	Filter Element	1
30	HB-14-20-075	Bolt <sup>1</sup> / <sub>4</sub> -20 x <sup>3</sup> / <sub>4</sub>	2
50	HW-14	Washer <sup>1</sup> / <sub>4</sub>	2
	HWL-14	Lock Washer	2
31			1
31 32	18-008	Pipe Thread Reducer	1
32	18-273	Fitting	1





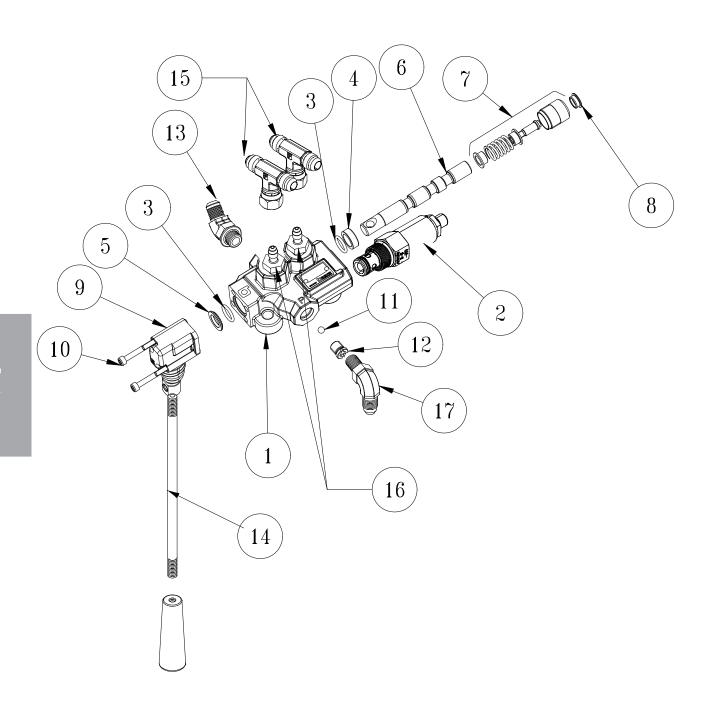
## ENGINE PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
33	32-060	Engine Plate	1
	HB-716-14-150	Bolt $^{7}/_{16}$ -14 x $1^{1}/_{2}$	4
	HWL-716	Lock Washer 7/16	4
34	32-045	Control Arm	1
35	32-123	Relay Bracket	1
36	32-124	Fuel Pump Mount	1
37	76-465	Coupling Complete	1
	76-466	<sup>7</sup> / <sub>8</sub> " Coupler Half	1
	76-467	11/8" Coupler Half	1
	76-468	Sleeve, M42	1
38	32-026	Pump Adapter	1
39	18-273	Fitting	1
40	23-145	O-ring	1
41	23-133	90° Adjustable Elbow	1



## REAR AXLE PARTS LIST

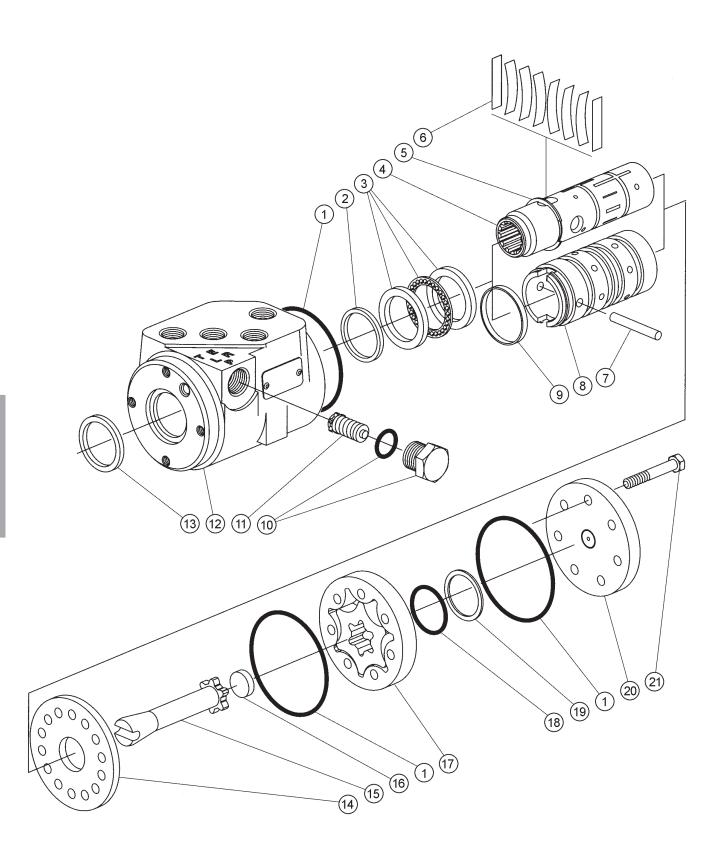
REF#	PART#	DESCRIPTION	QUANTITY
1	76-241	Right Caliper CW	1
2	34-122	Short Elbow	4
3	32-016	Rear Axle	1
4	76-240	Left Caliper CCW	1
5	76-239	8" Brake Disc	2
6	HB-12-13-750	Bolt $\frac{1}{2}$ - 13 x $7^{1}/_{2}$	4
	HNFL-12-13	Flange Lock Nut 1/2 - 13	4
7	HB-12-13-800	Bolt <sup>1</sup> / <sub>2</sub> -13 x 8	4
	HNFL-12-13	Flange Lock Nut 1/2 - 13	4
8	76-238	Wheel Motor	2
9*		Carrier Side Pad	1
10*		Carrier Side Pad Support	1
11*		Cam Side Pad Support	1
12*		Cam Side Pad	1
13	10-516	Brake Cable	2
14	32-079	Park Brake Equalizer	1
15	11-100	Linkage Yoke	1
	HCP-516-100	Clevis Pin 5/16 x 1	1
	HP-18-075	Cotter Pin <sup>1</sup> / <sub>8</sub> x <sup>3</sup> / <sub>4</sub>	1
16	32-013	Park Brake Rod	1
17	60-106	Brake Lever w/ Kit	1
18	HB-12-13-125	Bolt <sup>1</sup> / <sub>2</sub> -13 x 1 <sup>1</sup> / <sub>4</sub>	4
	HNFL-12-13	Bolt <sup>1</sup> / <sub>2</sub> - 13	4
*	34-101-02	Pad Kit with 2 Pads and Steel Support Plates	2 Kits per Axle





## 31-043 SINGLE-BANK HYDRAULIC VALVE PARTS LIST

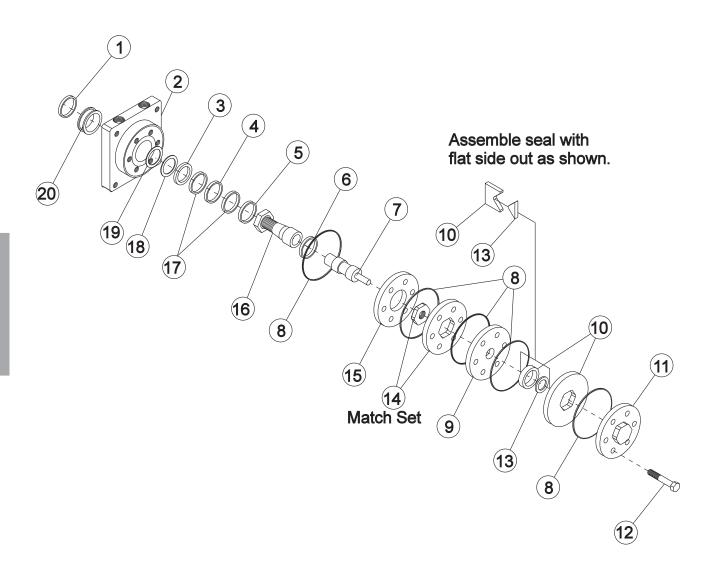
REF#	PART #	DESCRIPTION	QUANTITY
1*	13-731-01	Actuator Housing Assembly	1
2*		Relief Valve	1
3*†	78-415-03	O-Ring Seal	2
4*†	78-415-05	Spacer	3
5*	78-415-04	Flanged Washer HDM10	3
6*	13-731-03	Spool	1
7*	78-415-11	Positioner	1
8*	78-415-08	Plug	3
9*	78-415-09	Lever Group HDS11	3
10*	78-415-10	Metric Socket Screw M5 x .8 x 45	2
11*	13-731-04	1/4" Ball	1
12*†	13-731-05	Check Valve	1
13	18-188	45° Elbow	1
14	78-417	Straight Handle	1
15	32-020	<sup>3</sup> / <sub>8</sub> Branch Tee	2
16	18-169	<sup>3</sup> / <sub>8</sub> Adapter	2
17	18-168	3/8 Straight Elbow	1
*	31-043	Single Bank Hydraulic Valve (includes all * items)	
†	13-731-01	Actuator Housing Assembly	1 per Bank





# 34-103 ORBITROL PARTS LIST

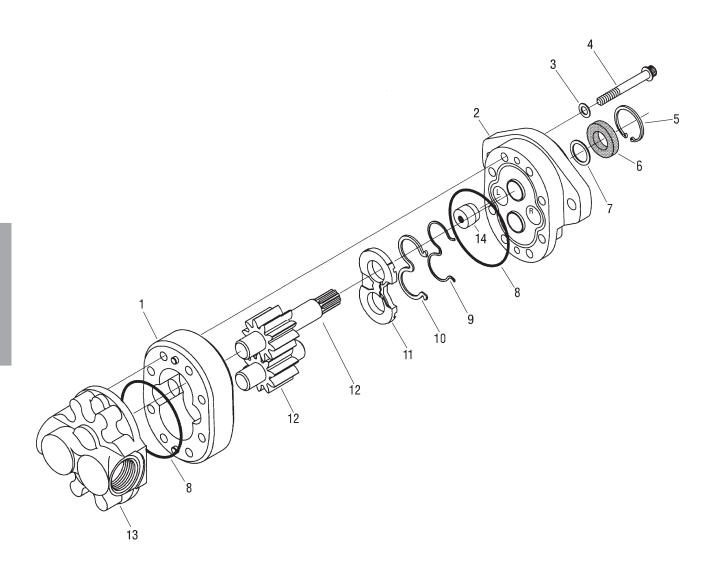
REF#	PART#	DESCRIPTION	QUANTITY
1*		O-Ring Seal	3
2*		Quad Seal	1
3	15-301-14	Bearing Kit	1
		Bearing Race	2
		Bearing	1
4		Spool	1
5	15-301-13	External Retaining Ring	1
6	15-301-15	Spring Centering Kit (Includes Ref# 9)	1
		Spring Spacer	2
		Centering Spring	6
		Spring Retaining Ring	1
7	15-301-08	Pin	1
8		Sleeve	1
9		Retainer	1
10	15-301-11	Plug and O-ring	1
*		O-Ring Seal	1
		Plug	1
11	15-301-12	Relief Valve/Check (1015 psi (70 bar))	1
12		Housing	1
13*		Dust Seal	1
14	15-301-06	Wear Plate	1
15	15-301-07	Drive	1
16	15-301-05	Spacer	1
17	15-301-04	Gerotor	1
18*		O-Ring	1
19*		Seal	1
20	15-301-03	End Cap	1
21	15-301-02	Cap Screw	7
*	15-301-01	Seal Kit	



# 76-238 WHEEL MOTOR PARTS LIST (14.5 CI)

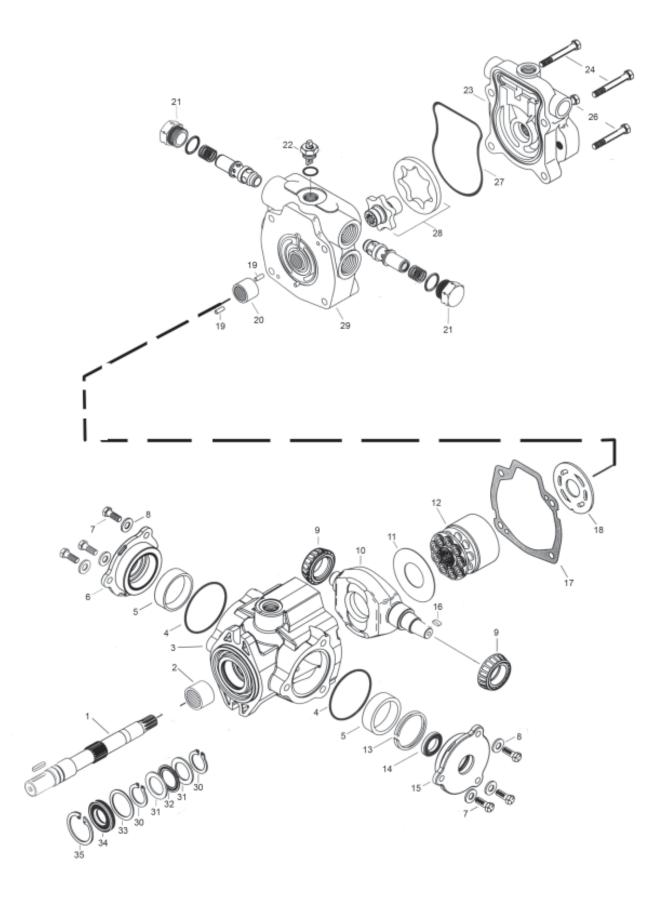
REF#	PART#	DESCRIPTION	QUANTITY
1*		Water & Dirt Seal	1
2†	13-615-05	Service Housing Assembly	1
3*		Inner Seal	1
4†	13-032-27	Thrust Bearing	1
5†	13-032-28	Inner Bearing	1
6	13-032-29	Thrust Bearing	1
7	76-238-03	Drive Link	1
8*		Ring Seal	5
9	13-032-31	Manifold	1
10	13-032-32	Commulator Assembly (matched set)	1
11	13-032-33	End Cover	1
12	76-238-01	Bolt	7
13*		Commulator Seal (matches with #10)	1
14	76-238-02	Rotor Set (matched set)	1
15	13-032-35	Plate Wear	1
16	13-615-04	Coupling Shaft	1
	HWK-516-100	Woodruff Key <sup>5</sup> / <sub>16</sub> x 1	1
	14-265	Nut 1 - 20	1
17†	13-032-37	Thrust Washer	2
18*		Backup Washer	1
19*		Backup Washer	1
20†	13-032-38	Outer Bearing	1
*	14-080	Seal Kit	1
†	Included in 13-615	-05 Service Housing Assembly	





# 76-197 EATON GEAR PUMP PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1		Body	1
2	76-197-01	Front Plate	1
3*		Washer	4
4	76-197-06	Cap Screw	8
5	76-197-07	Retaining Ring	1
6*		Shaft Seal	1
7	33-061-15	Washer	1
8*		O-Ring	2
9*		Backup Gasket	1
10*		Seal	1
11*		Wear Plate	1
12	76-197-04	Shaft (comes with Idler Gear)	1
13	76-197-02	Back Plate	1
14*		Plug	1
*	76-197-08	Seal Kit	





# 76-482HYDROSTATIC PUMP PARTS LIST

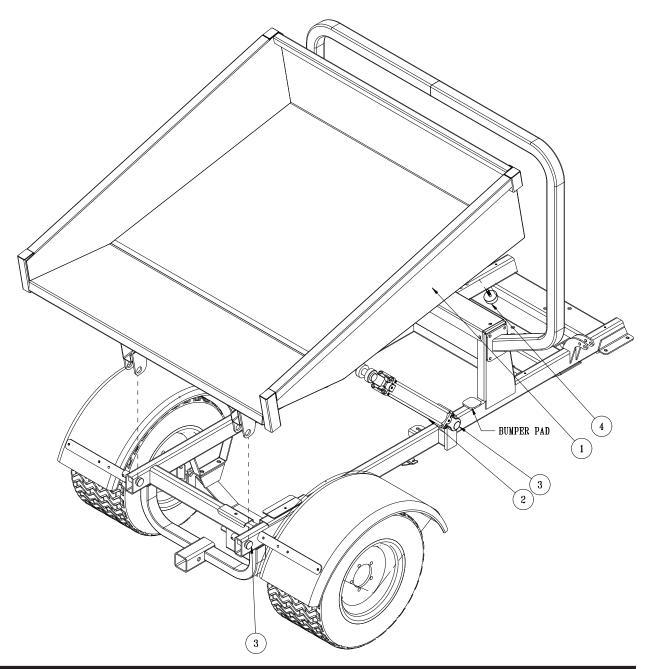
REF#	PART#	DESCRIPTION	QUANTITY
1	76-398-01	Drive Shaft (splined)	1
2	60-343-08	Needle Bearing (with housing)	1
3	77-239-01	Housing	1
4	77-239-02	O-Ring	1
5	77-239-03	Thrust Bearing	2
6	77-239-04	Trunnion Cover	1
7	77-239-05	Pan Head Screw	2
8	77-239-06	Washer	6
9	77-239-07	Cone Bearing	2
10	77-239-08	Cam Plate	1
11	77-239-09	Swash Plate Insert	1
12	60-343-21	Rotating Kit	1
13	77-239-10	Crush Ring	1
14*	60-343-12	Shaft Seal	1
15	77-239-11	Seal Cover	1
16	77-239-12	Key	1
17*	77-239-13	Gasket	1
18	76-482-01	Back Plate	1
19	33-058-27	Dowel Pin	2
20	60-343-23	Bearing	1
21	77-239-15	Relief Valve	2
22	77-239-16	Tow Valve Assembly	1
23	76-160	Charge Pump Adaptor	1
24	77-239-17	Cap Screw	2
26	77-239-18	Cap Screw	2
27*	77-239-19	O-Ring	1
28	60-343-43	Gerotor and Coupler	1
29	77-239-20	End Cover Assembly	1
30*	77-239-21	Retaining Ring	2
31	60-343-05	Bearing Race	1
32	60-343-06	Thrust Bearing	1
33	60-343-03	Washer	2
34*	60-343-02	Shaft Seal	1
35*	60-343-01	Retaining Ring	1

Seal Kit

77-239-22

**<sup>45</sup>** 

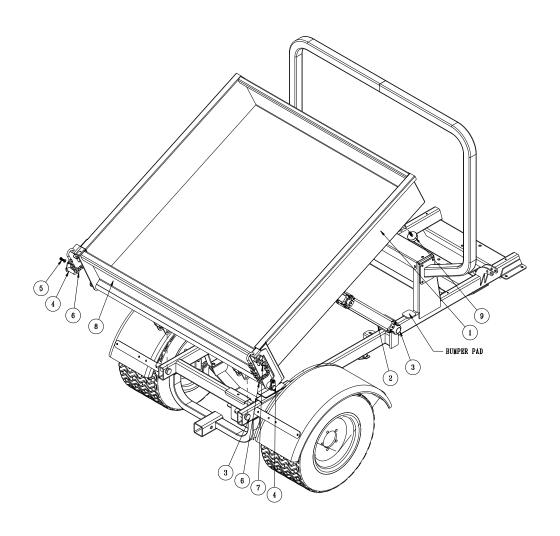
# 32-001 GONDOLA BOX



# PARTSLIST

REF#	PART#	DESCRIPTION	QUANTITY
1	32-102	Gondola Box	1
2	76-242	Cylinder	2
	76-242-01	Seal Kit	
	32-042	Spacer	2
3	76-242-02	Clevis Pin w/ Clip	4
4	50-081	Rubber Bumper	2
	HNFL-38-16	Flange Whiz Lock Nut 3/8 -16	2

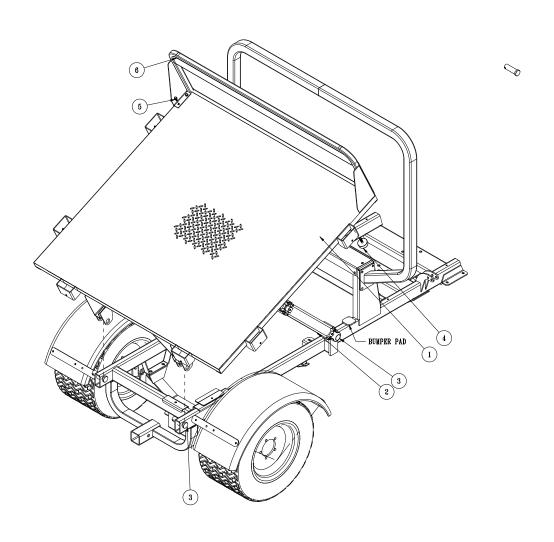




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REF#	PART#	DESCRIPTION	QUANTITY
1	32-062	Tailgate Box	1
2	76-242	Cylinder	2
	76-242-01	Seal Kit	
	32-042	Spacer	2
3	76-242-02	Clevis Pin w/ Clip	4
4	32-043	Lock	2
5	HB-14-20-075	Bolt <sup>1</sup> / <sub>4</sub> - 20 x <sup>3</sup> / <sub>4</sub>	2
	HW-14	Washer 1/4	2
	HNTL-14-20	Lock Nut 1/4 - 20	2
6	32-033	Gate Hook	2
	8892-10.5	Chain Wrap	2
7	HBFL-516-18-075	Flange Bolt 5/16 -18 x 3/4	2
	HNFL-516-18	Flange Whiz Lock Nut 5/16 - 18	2
8	32-078	Tailgate	1
9	50-081	Rubber Bumper	2
	HNFL-38-16	Flange Whiz Lock Nut 3/8 -16	2 <





# PARTSLIST

REF#	PART#	DESCRIPTION	QUANTITY
1	32-103	Flat Bed	1
2	76-242	Cylinder	2
	76-242-01	Seal Kit	
	32-042	Spacer	2
3	76-242-02	Clevis Pin w/ Clip	4
4	50-081	Rubber Bumper	2
	HNFL-38-16	Flange Whiz Lock Nut 3/8 -16	2
5	HBFL-516-18-075	Flange Bolt 5/16 -18 x 3/4	2
	HNFL-516-18	Flange Whiz Lock Nut 5/16 - 18	2
6	32-118	Front Guard	1



### DECAL LIST

This is a list of decals located on the Dump truck. Part number, description and location will help in reordering decals.

25-277	Decal, Battery Warning	Battery
25-355	Decal, Tire Pressure 18PSI	Front Tires
25-356	Decal, Tire Pressure 20 PSI	Rear Tires
25-358	Decal, Smithco 12"	Rear Dump Box
25-381	Decal, dBA 96	Seat Panel
27-077	Decal, Round Smithco	Steering Cap
32-018	Decal, Dash Board	Dash Board
32-029	Decal, TCV 2200	Dump Box Sides
32-085	Decal, Warning Strip	Cup Holder
34-147	Decal, Smithco Logo	Nose Cone
51-183	Decal, Dump Box	Between Seats

### QUICK REFERENCE REPLACEMENT PARTS

REPLACEMENT FILTERS

23-031 Hydraulic Oil Filter Replacement

Briggs # 841497

Briggs # 821136

42-076-03Air Filter Element13-531Engine Oil Filter76-395-01Air Cleaner Cartridge76-395-02Safety Filter Cartridge

50-403 Fuel Filter

**SEAL KITS** 

34-103 Power Steering Orbital Motor

14-098 Seal Kit

76-238 Wheel Motors 14-080 Seal Kit

76-482 Hydrostat Pump

77-239-22 Seal Kit

76-197 Gear Pump 76-197-08 Seal Kit

10-554 Hydraulic Cylinder

14-529 Seal Kit

76-242 Hydraulic Cylinder

76-242-01 Seal Kit

31-043 Single Bank Valve

31-731-01 Seal Kit

**FLUIDS** 

Engine Oil SAE 10W-40 API Service SJ or higher Motor Oil



### 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 cov-



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 influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, or chemicals, etc.



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



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



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

### Other Legal Disclaimers:

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

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

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

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

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

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

SMITHCO, INC.

Wayne, PA 19087

