

Parts & Service



# **SweepStar 60**

**76-750-A**  
**SN: 60Q1081**

**June 2025**

***Product Support:***

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## Reference

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

Read this manual and all other manuals pertaining to the Sweep Star carefully as they contain safety, operating, assembly and maintenance instructions. Failure to do so could result in personal injury or equipment damage.

Keep manuals in a safe place after operator and maintenance personnel have read them. Right and left sides are from the operator's seat, facing forward.

## WARNING

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

All **Smithco** machines have a Serial Number and Model Number. Both numbers are needed when ordering parts. The serial number plate on the Sweep Star 60 is located on the right main frame below oil tank. Refer to engine manual for placement of engine serial number.

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

Information needed when ordering replacement parts:

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

For easy access record your Serial and Model numbers here.

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

**SMITHCO CUSTOMER SERVICE 1-800-891-9435**

## 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 protective clothing and personal safety devices 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. 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.
10. Keep engine clean. Allow the engine to cool before storing and always remove the ignition key.
11. After engine has started, machine must not move. If movement is evident, the neutral mechanism is not adjusted correctly. Shut engine off and readjust so the machine does not move when in neutral position.
13. Never use your hands to search for oil leaks. Hydraulic fluid under pressure can penetrate the skin and cause serious injury.
14. 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 operate on a slope greater than 10°. Pay careful attention to the inclinometer on your machine.
  - C. Do not stop or start suddenly on sloped surfaces.
  - D. Reduce speed on slopes and in all turns. Use caution when changing directions on all surfaces.
  - E. Do not change directions of travel on any slope.
  - F. Do not operate debris hopper lift or tailgate while on slopes.
  - G. Stay alert for holes in the terrain and other hidden hazards.
15. Before leaving operator's position for any reason:
  - A. Disengage all drives.
  - B. Lower all attachments to the ground.
  - C. Set park brake.
  - D. Shut engine off and remove the ignition key.
16. Keep hands, feet and clothing away from moving parts. Wait for all movement to stop before you clean, adjust or service the machine.
17. Keep the area of operation clear of all bystanders.
18. Never carry passengers.
19. Stop engine before making repairs/adjustments or checking/adding oil to the crankcase.
20. Use parts and materials supplied by SMITHCO only. Do not modify any function or part.
21. Do not remove the radiator cap when the engine is hot. When cooled, loosen cap slightly to the stop to relieve any pressure before removing the cap completely.

***These machines are intended for operation by well trained persons performing 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 60

## WEIGHTS AND DIMENSIONS

|                         |                    |
|-------------------------|--------------------|
| Length                  | 134" (340 cm)      |
| Width                   | 74.5" (179 cm)     |
| Height with Hopper Down | 82" (208 cm)       |
| Height with Hopper Up   | 124" (315 cm)      |
| Wheel Base              | 72" (183 cm)       |
| Weight                  | 2550 lbs (1157 kg) |

## ROLL OVER PROTECTION BAR WITH SEAT BELTS

Smithco Engineered Operator Structure with Seat Belts

## SOUND LEVEL

|                   |       |
|-------------------|-------|
| At ear level      | 86 dB |
| At 3 ft (0.914 m) | 88 dB |
| At 30 ft (9.14 m) | 76 dB |

## ENGINE

|                    |                    |
|--------------------|--------------------|
| Make               | Briggs & Stratton  |
| Model#             | 613477             |
| Type / Spec#       | 4246-J1            |
| Horsepower         | 35 Hp (26 kw)      |
| Fuel               | Unleaded 87 Octane |
|                    | Gasoline Minimum   |
| Cooling System     | Air Cooled         |
| Lubrication System | Full Pressure      |
| Alternator         | 24 Amp             |

## Tire & Wheels

Front: Two 20 x 10.00 x 10 Turf-trac (18 psi; 1.3 bar)  
 Rear: Two 24 x 13.00 x 12 Super Soft (18 psi; 1.3 bar)  
 Castor: 9 x 3.5 - 4 (20 psi; 1.4 bar)

## SPEED

|               |                           |
|---------------|---------------------------|
| Forward Speed | 0 to 12 m.p.h. (0-19 kph) |
| Reverse Speed | 0 to 4 m.p.h. (0-6 kph)   |

## BATTERY

|                          |                              |
|--------------------------|------------------------------|
|                          | Automotive type 24F -12 volt |
| BCI Group                | Size 24F                     |
| Cold Cranking Amps       | 4600minimum                  |
| Ground Terminal Polarity | Negative (-)                 |
| Maximum Length           | 10.25" (26 cm)               |
| Maximum Width            | 6.88" (17 cm)                |
| Maximum Height           | 10.00" (25 cm)               |

## FLUID CAPACITY

|                          |   |
|--------------------------|---|
| Crankcase Oil            | See Engine Manual                             |
| Fuel                     | 8 gallon (30,2 liters)                        |
| Hydraulic Fluid          | 25 gallon (94,6 liters)                       |
| Grade of Hydraulic Fluid | SAE 10W-40 API Service SJ or higher Motor Oil |

# OPTIONAL EQUIPMENT

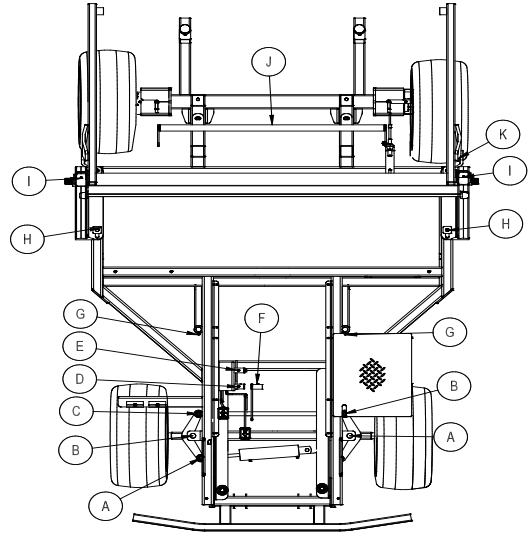
- 76-753 60" Finger Reel Kit
- 76-752 60" Brush Reel Kit
- 76-751 Filtration Pack
- 76-754 France Brush Reel Kit
- 76-744 Decal Set For CE Certification

# MAINTENANCE

## LUBRICATION

Use No. 2 General Purpose Lithium Base Grease and lubricate every 100 hours. The Sweep Star 60 has 16 grease fittings.

- A. One on front steering cylinder.
- B. One on each front steering pivot.
- C. One on each end of steering tie rod.
- D. One on forward pedal.
- E. One on reverse pedal.
- F. One on hydrostatic forward and reverse relay.
- G. One on each castor wheel mount bracket.
- H. One on each pillow block bearing on end of finger reel.
- I. One on the outside of each tower.
- J. One on the center of park brake relay on rear axle.
- K. One on rod end of the tailgate cylinder.



Every 500 hours of operation, separate the hydrostatic pump from the engine. Clean the splined areas and lightly grease the male portion of the pump spline. Use either Dow Corning® G-N Metal Assembly Paste or #77 Assembly Paste.

As you remount the pump to the engine, be certain the mating surface are clean and free of any foreign material and that the pump is correctly aligned.

## ELECTRICAL CONNECTIONS

Use dielectric grease on all electrical connections.

## AIR CLEANER ON ENGINE

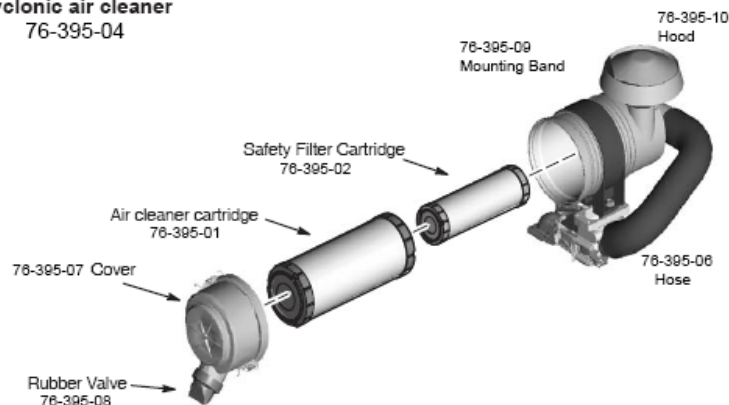
1. Unclip the two clips, remove the cover and pull out the element.
2. To service, clean by tapping gently on flat surface. Do not oil. Replace if very dirty or damaged.
3. Clean out the inside of the body and cover.
4. Place the element into the body and put the cover back on..



### IMPORTANT

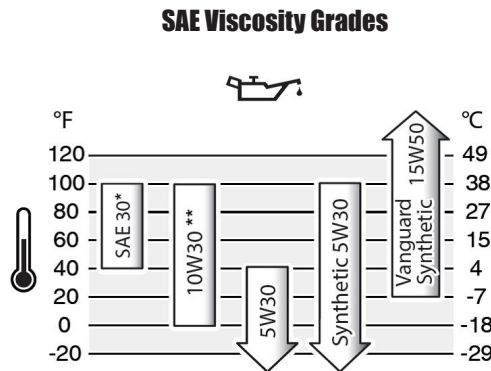
**Do not use petroleum solvents, e.g., kerosene, which will cause cartridge to deteriorate. Do not use pressurized air to clean cartridge. Pressurized air can damage cartridge.**

**Cyclonic air cleaner**  
76-395-04



## ENGINE OIL

Change and add oil according to chart below based on air temperature at the time of operation. Do not overfill. Use a high-quality detergent oil classified for service SF, SG, SH, SJ or higher. Use no special additives with recommended oils. Do not mix oil with gasoline.



*Starting Temperature Range Anticipated Before Next Oil Change*

## 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, whichever is first and change the filter after the first 50 hours, then every 250 hours thereafter.
3. The oil level should be 2" to 2 1/2" from top of the tank when fluid is cold. Do not overfill.
4. After changing oil and/or filter, run the machine for a few minutes. Check oil level and for leaks.
5. 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.
6. If natural color of fluid is now 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 and filter immediately after fluid is cool and find cause. Take fluid level readings when system is cold.
9. 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.
10. 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.

## TOWING

When it is necessary to move the Sweep Star 60 without engine running, the bypass valve built into hydrostatic pump must be "open" by turning it counterclockwise. The valve is located on bottom left of 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.

## TIRE PRESSURE



**CAUTION**

Caution must be used when inflating a low tire to recommended pressure. Over inflating can cause tires to explode. Front tires should be 5 psi (.34 bar), rear tires and castor wheel should be 20 psi (1.4 bar) maximum. Improper inflation will reduce tire life considerably.

## MAINTENANCE (CONTINUED)

### WHEEL MOUNTING PROCEDURE

1. Set park brake. Turn machine off and remove key.
2. Block wheel on opposite corner
3. Loosen nuts slightly on wheel to be removed.
4. Jack up machine being careful not to damage underside of machine.
5. Remove nuts, remove wheel.
6. Place new wheel on hub lining up Hex Bolt holes.
7. Torque nuts to 64-74 ft/lb (87-100 Nm) using a cross pattern. Torque again after first 8 hours and every 200 hours thereafter.
8. Lower machine to ground and remove blocks and jack.

### 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.

#### WARNING

**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.**

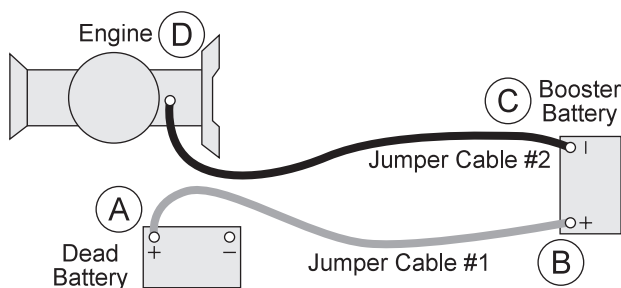
#### WARNING

**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.**

### JUMP STARTING

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.

## SERVICE CHART

### CAUTION

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

### IMPORTANT

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 8 operating hours   | Torque the wheel lug nuts. (64-74 ft/lb (87-100 Nm))  |
|   | Change the engine oil filter.                         |
| Before each use daily   | Check the engine oil level.                           |
|   | Clean area around muffler and controls.               |
|   | Check the hydraulic fluid level.                      |
|   | Check the tire pressure.                              |
|   | Check and clean Debris Filter Pack1                   |
|   | Check condition of hydraulic hoses and fittings.      |
|   | Inspect and clean the machine.                        |
| After the first 50 hours  | Change Hydraulic Oil Filter.                          |
| Every 100 hours   | Clean or change air filter.1&2                        |
|   | Clean pre-cleaner.1                                   |
|   | Change engine oil and filter.                         |
|   | Replace spark plug .                                  |
|   | Lubricate machine.                                    |
|   | Clean or change remote air cleaner.                   |
|   | Check the battery fluid level and cable connections.. |
|   | Service exhaust system.                               |
|   | Check belt tension .                                  |
| Every 250 hours   | Check engine valve clearance and adjust if necessary. |
|   | Check idle speed.                                     |
|   | Clean battery terminals.                              |
|   | Change hydraulic oil filter.                          |
|   | Torque the wheel lug nuts. (64-74 ft/lb (87-100 Nm))  |
| Every 500 hours or yearly   | Change fuel filter.                                   |
|   | Change hydraulic oil and filter.                      |
|   | Clean oil cooler fins.1                               |
|   | Replace air filter2                                   |
|   | Replace fuel filter                                   |
|   | Clean air cooling system.1                            |
|   | Check safety filter in remote air cleaner.            |
| 1 In dusty conditions or when airborne debris is present, clean more often. |   |
| 2 Every third air filter change, replace the inner safety filter.           |   |

## END USER SERVICE CHART

# Service

[illegible]

## SWEEPING

While sweeping close tailgate frequently to ensure tailgate does not creep open.

While operating the Sweep Star's sweeper head, it is important to disengage the head before raising. If the sweeper head is raised while it is engaged, it can cause the belt to slip off the pulleys. This can result in belt failure and engine crankshaft failure. To ensure a long life of your sweeper,



**CAUTION**

**Disengage the sweeper head before raising.**

## FILTER PACK

Filter pack may be cleaned by shaking or spraying off with low pressure water. Filter will disintegrate if high pressure is used on it.

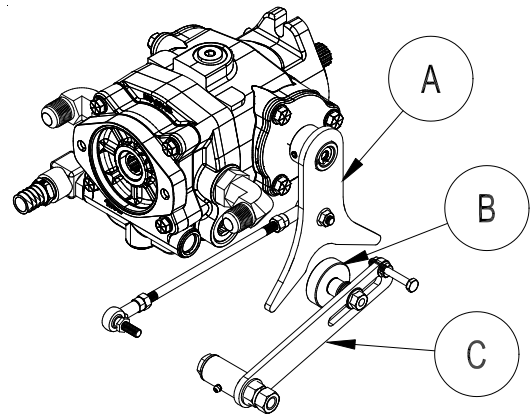
## PARK BRAKE ADJUSTMENT

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 cable to adjust length of cable.

## WHEEL 'CREEP' ADJUSTMENT

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

1. Lift up and support the unit so rear wheels are off the ground and can turn freely.
2. On the side of hydrostatic transmission is the shift arm (A). In the 'V' shaped notch of shift arm rests and idler pulley (B). This pulley is mounted on an idler arm (C).
3. Loosen Hex Bolt and nut holding pulley to idler arm. Leave finger tight.
4. With engine running, slide the pulley in idler arm slot until it centers on shift arm on hydrostatic and wheel 'creep' stops.
5. Tighten all fasteners and test by using foot pedal linkage to see that the 'creep' is removed.
6. Turn the engine off and lower the machine.

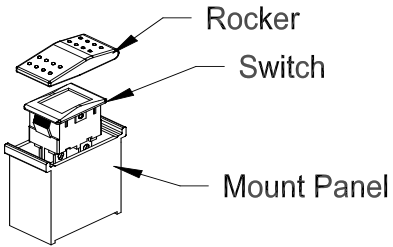


# STORAGE

When storing, remove the key from the key switch to avoid unauthorized persons from operating machine.

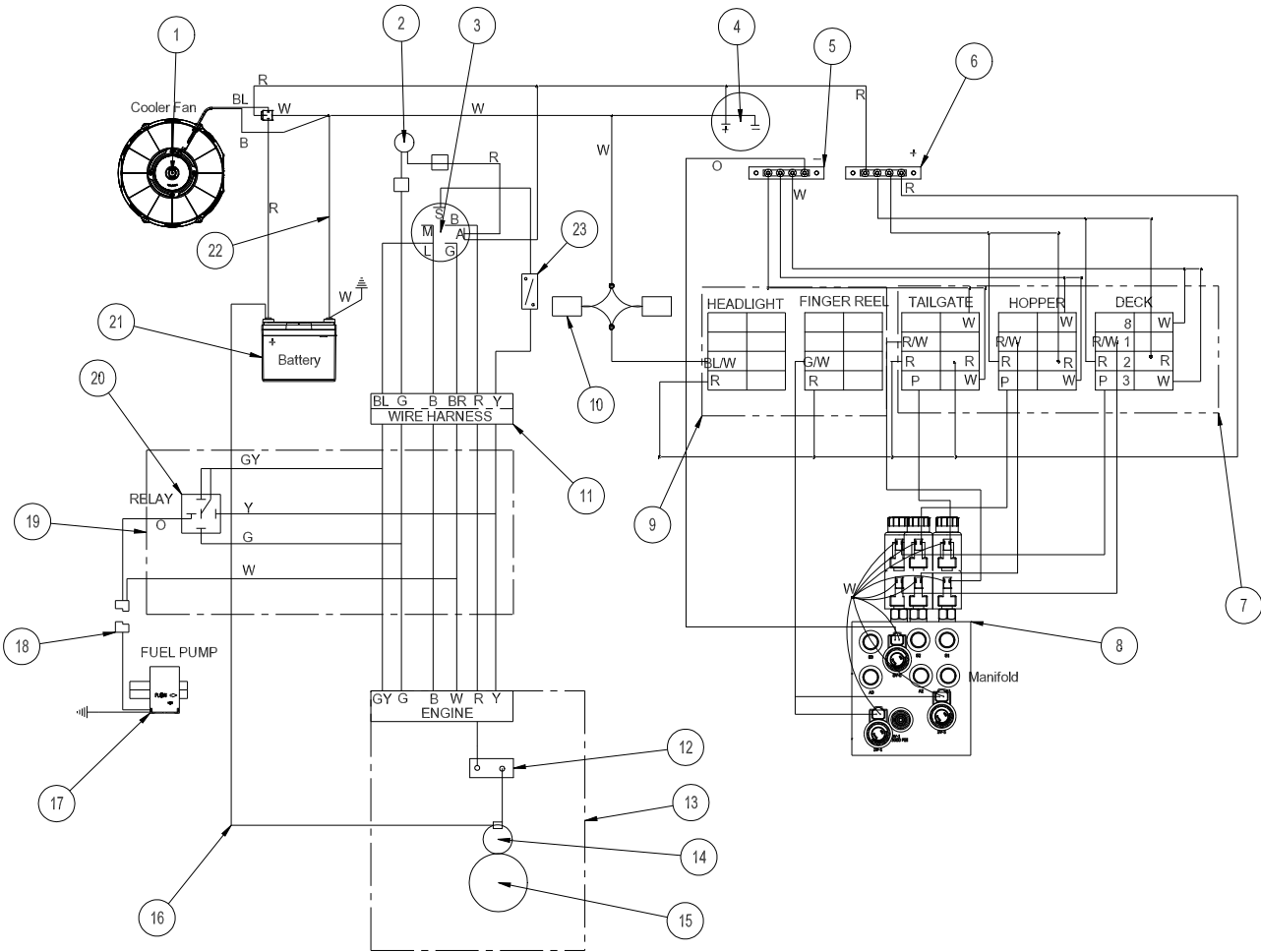
1. Before storing clean machine thoroughly.
2. Check Hex Bolts and nuts, tighten as necessary.
3. Make all repairs that are needed and remove any debris.
4. Remove the battery, adjust the electrolyte level and recharge it. Store the battery in a dry, dark place.
5. Store in a clean and dry area, but NOT near a stove, furnace or water heater which uses a pilot light or any device that can create a spark.
6. Engines stored over 30 days need to be protected or drained of fuel to prevent gum from forming in a fuel system or on essential carburetor parts. Check the engine manual and follow the instructions for the storage of the engine.

## WIRING DIAGRAM



| Color Code Chart |        |
|------------------|--------|
| Bl               | Blue   |
| Br               | Brown  |
| Y                | Yellow |
| G                | Green  |
| O                | Orange |
| R                | Red    |
| B                | Black  |
| GY               | Gray   |
| W                | White  |

| Color Code Chart |        |
|------------------|--------|
| Bl               | Blue   |
| Br               | Brown  |
| Y                | Yellow |
| G                | Green  |
| O                | Orange |
| R                | Red    |
| B                | Black  |
| GY               | Gray   |
| W                | White  |

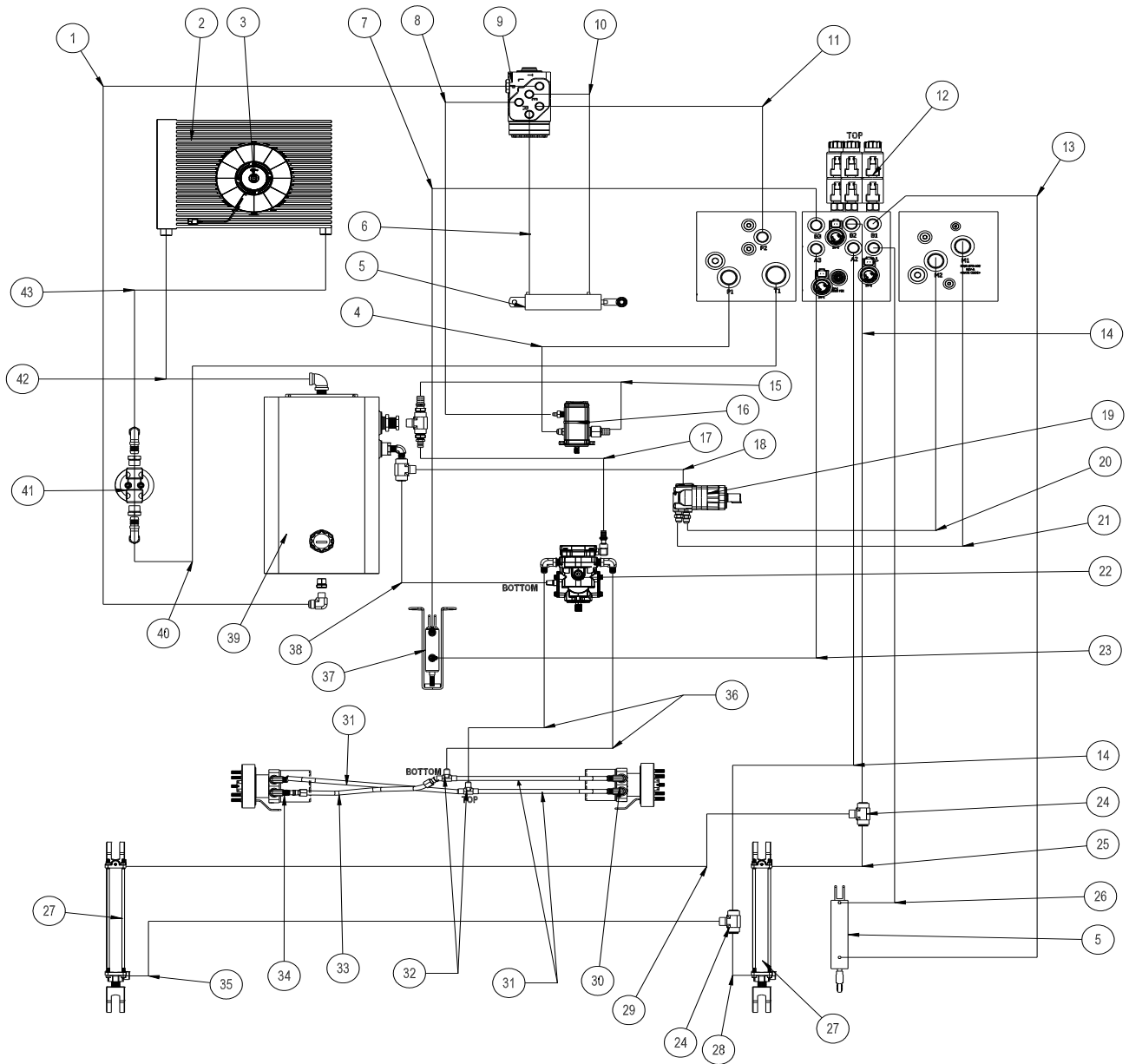




## WIRING PARTS LIST

| REF# | PART#     | DESCRIPTION                       | QUANTITY |
|------|-----------|-----------------------------------|----------|
| 1    | 76-544    | Cooler Fan                        | 1        |
| 2    | 50-359    | Warning Indicator Light           | 1        |
| 3    | 13-488    | Key Switch with Hardware          | 1        |
| 4    | 12-804    | Hour Meter                        | 1        |
| 5    | 8935      | Buss Bar - Negative               | 1        |
| 6    | 8935      | Buss Bar - Positive               | 1        |
| 7    | 15-728    | Centering Switch, On-Off-On       | 3        |
|      | 15-727    | Rocker, No light                  | 3        |
|      | 15-729    | Mount Panel, Middle               | 1        |
|      | 15-725    | Mount Panel, End                  | 2        |
| 8    | 76-560    | Manifold                          | 1        |
| 9    | 15-782    | Unlit Switch, On-None-Off         | 2        |
|      | 15-727    | Rocker, No light                  | 2        |
|      | 15-725    | Mount Panel, End                  | 2        |
| 10   | 32-014    | Headlights                        | 2        |
| 11   | 76-563    | Wire Harness                      | 1        |
| 12   | 77-261    | Circuit Breaker 40 AMP            | 1        |
|      | 8977      | Circuit Breaker Boot              | 1        |
| 13   | 76-749    | Briggs 35hp Engine                | 1        |
|      | 76-446-02 | Oil Sender                        | 1        |
| 14   |           | Starter Solenoid (Part of Engine) |          |
| 15   |           | Starter (Part of Engine)          |          |
| 16   | 48-157    | Red Battery Cable                 | 1        |
| 17*  | 76-757    | Electric Fuel Pump w/ Connectors  | 1        |
| 18*  | 9016      | 2-Contact Tower                   | 1        |
|      | 9017      | Weather Pack Terminal             | 2        |
|      | 9018      | Seal                              | 2        |
| 19   | 76-633    | Fuel Pump Wire Harness            | 1        |
| 20   | 30-042-06 | Relay                             | 1        |
| 21   | 33-216    | Battery                           | 1        |
| 22   | 48-268    | Black Battery Cable               | 1        |
| 23   | 45-529-01 | Seat Switch                       | 1        |
|      | 76-563    | Main Wire Harness                 | 1        |
|      | 76-633    | Fuel Pump Wire Harness            | 1        |

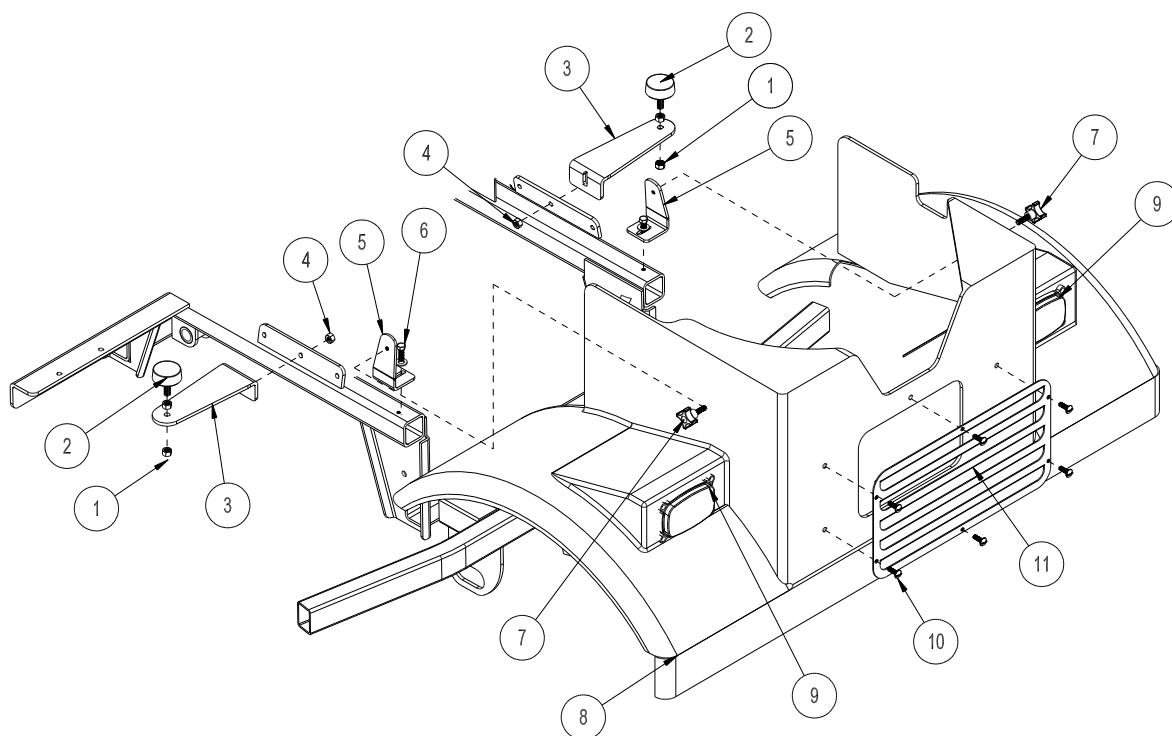
# HYDRAULIC DIAGRAM



## HYDRAULIC DIAGRAM PARTS LIST

| REF# | PART#     | DESCRIPTION                              | QUANTITY |
|------|-----------|--|----------|
| 1    | 76-532    | STC Hydraulic Hose, 83"                  | 1        |
| 2    | 76-561    | Cooler                                   | 1        |
| 3    | 76-544    | Cooler Fan                               | 1        |
| 4    | 76-556    | Hydraulic Hose, 45"                      | 1        |
| 5    | 15-839    | Hydraulic Cylinder (Steering & Tailgate) | 2        |
| 6    | 76-534    | STC Hydraulic Hose, 55"                  | 1        |
| 7    | 76-551    | Hydraulic Hose, 33"                      | 1        |
| 8    | 76-535    | STC Hydraulic Hose, 65"                  | 1        |
| 9    | 76-559    | Orbitrol                                 | 1        |
| 10   | 76-533    | STC Hydraulic Hose, 53"                  | 1        |
| 11   | 76-531    | STC Hydraulic Hose, 106"                 | 1        |
| 12   | 76-560    | Manifold                                 | 1        |
| 13   | 76-557    | Hydraulic Hose, 191"                     | 1        |
| 14   | 76-549    | Hydraulic Hose, 91"                      | 2        |
| 15   | 8833      | 1" Suction Hose                          | 50"      |
|      | 18-222    | Hose Clamp                               | 2        |
| 16   | 76-540    | Gear Pump                                | 1        |
| 17   | 8832      | $\frac{3}{4}$ " Suction Hose             | 41"      |
|      | 18-040    | Hose Clamp                               | 2        |
| 18   | 76-547    | Hydraulic Hose, 50"                      | 1        |
| 19   | 76-539    | Reel Motor                               | 1        |
| 20   | 76-553    | Hydraulic Hose, 48"                      | 1        |
| 21   | 76-554    | Hydraulic Hose, 53"                      | 1        |
| 22   | 76-638    | Hydrostat Pump                           | 1        |
| 23   | 76-552    | Hydraulic Hose, 33"                      | 1        |
| 24   | 18-173    | Tee $\frac{3}{8}$ " Junction Union       | 2        |
| 25   | 76-116    | Hydraulic Hose, 6.5"                     | 1        |
| 26   | 76-548    | Hydraulic Hose, 182"                     | 1        |
| 27   | 76-627    | Hydraulic Cylinder (Hopper)              | 2        |
| 28   | 76-117    | Hydraulic Hose, 20"                      | 1        |
| 29   | 76-114    | Hydraulic Hose, 72"                      | 1        |
| 30   | 76-543    | RH Wheel Motor                           | 1        |
| 31   | 20-656    | Hydraulic Tube Assembly                  | 3        |
| 32   | 34-057    | Tee                                      | 2        |
| 33   | 76-541    | Hydraulic Tube Assembly                  | 1        |
| 34   | 76-542    | LH Wheel Motor                           | 1        |
| 35   | 76-115    | Hydraulic Hose, 84"                      | 1        |
| 36   | 76-555    | Hydraulic Hose, 116"                     | 2        |
| 37   | 76-478    | Hydraulic Cylinder (Reel Lift)           | 1        |
| 38   | 76-550    | Hydraulic Hose, 35"                      | 1        |
| 39   | 76-545    | Oil Tank                                 | 1        |
|      | 13-586-03 | Filler Neck                              | 1        |
|      | 13-747    | Filler Breather                          | 1        |
| 40   | 8833      | 1" Suction Hose                          | 52"      |
|      | 18-222    | Hose Clamp                               | 2        |
| 41   | 72-146    | Oil Filter Assembly                      | 1        |
|      | 60-334    | Filter Element (replacement only)        | 1        |
| 42   | 8833      | 1" Suction Hose                          | 10.5"    |
|      | 18-222    | Hose Clamp                               | 2        |
| 43   | 8833      | 1" Suction Hose                          | 33"      |
|      | 18-222    | Hose Clamp                               | 2        |

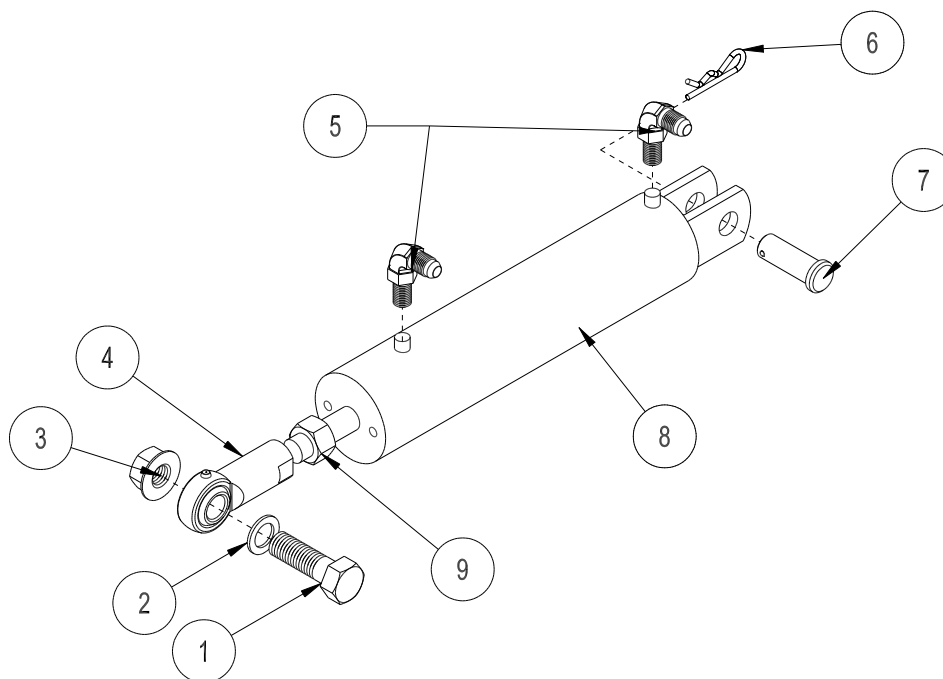
# NOSE CONE DRAWING



Parts

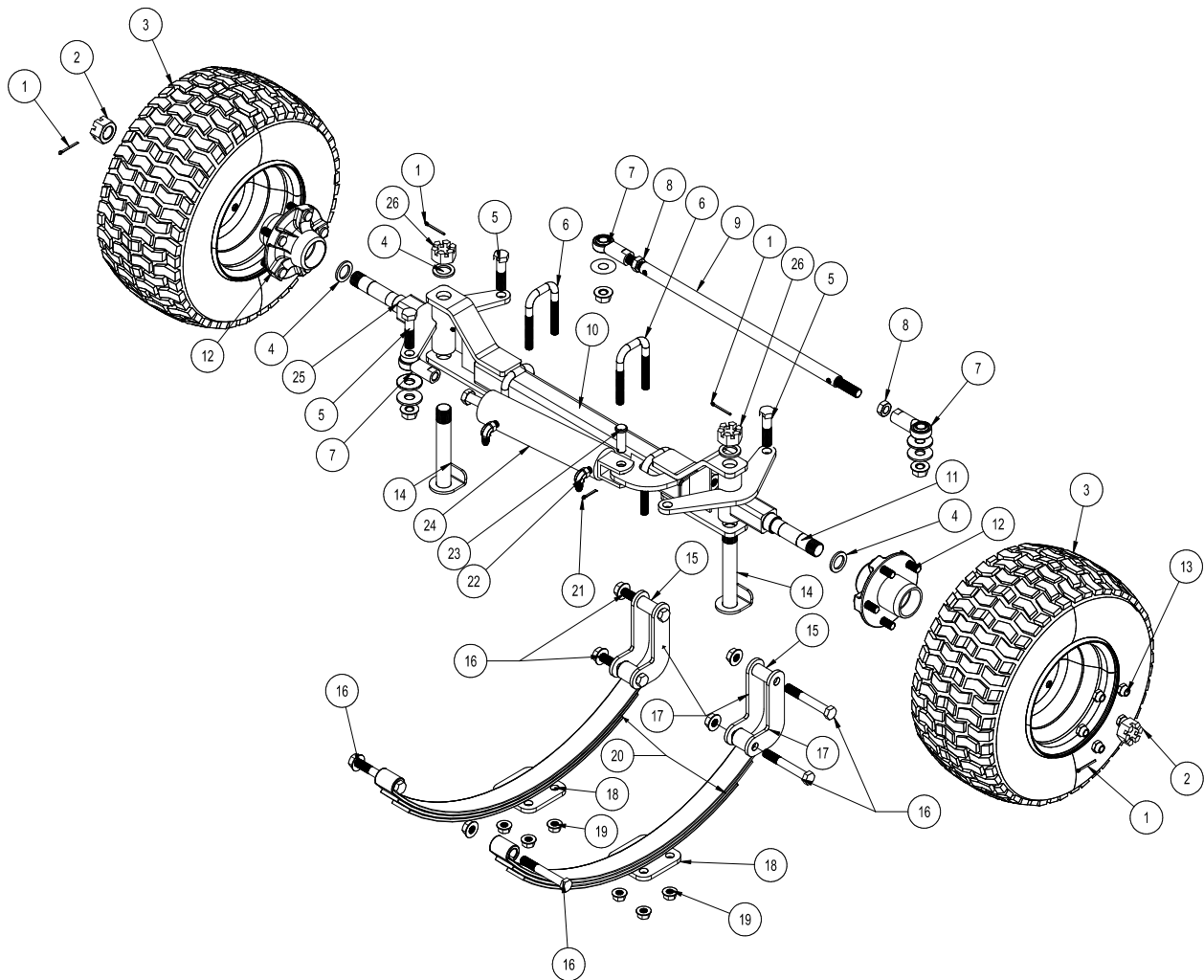
| REF# | PART#          | DESCRIPTION  | QUANTITY |
|------|----------------|--|----------|
| 1    | 50-081         | Rubber Insulator                                     | 2        |
| 2    | HNFL-38-16     | Flange Whiz-loc Nut, $\frac{3}{8}$ - 16              | 4        |
| 3    | 76-584         | Glass Support  | 2        |
| 4    | HB-516-18-100  | Hex Bolt, $\frac{5}{16}$ - 18 x 1                    | 2        |
|      | HNFL-516-18    | Flange Whiz-loc Nut, $\frac{5}{16}$ - 18             | 2        |
| 5    | 76-583         | Front Glass Support                                  | 2        |
| 6    | HB-38-16-125   | Hex Bolt, $\frac{3}{8}$ - 16 x $1\frac{1}{4}$        | 2        |
|      | HWL-38         | Lock Washer, $\frac{3}{8}$                           | 2        |
| 7    | 42-462         | Plastic Knob   | 2        |
| 8    | 76-562         | Nose Cone  | 1        |
| 9    | 32-014         | Headlight  | 2        |
| 10   | HSTP-14-20-075 | Truss Head Screw, $\frac{1}{4}$ - 20 x $\frac{3}{4}$ | 6        |
|      | HNFL-1/4-20    | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20              | 6        |
| 11   | 76-597         | Louver   | 1        |

# STEERING CYLINDER DRAWING



| REF# | PART#        | DESCRIPTION                                    | QUANTITY |
|------|--------------|--|----------|
| 1    | HB-58-11-250 | Hex Bolt, $\frac{5}{8}$ - 11 x 2 $\frac{1}{2}$ | 1        |
| 2    | HMB-58-14    | Machine Bushing, $\frac{5}{8}$ - 14GA          | 2        |
| 3    | HNTL-58-11   | Nylon Lock Nut, $\frac{5}{8}$ - 11GA           | 1        |
| 4    | 18-154       | Rod End  | 1        |
|      | HG-14-28-180 | Grease Fitting, $\frac{1}{4}$ - 28 x 180°      | 1        |
| 5    | 18-168       | Elbow  | 2        |
| 6    | HHP-18       | Bridge Pin, $\frac{1}{8}$                      | 1        |
| 7    | HCP-58-175   | Clevis Pin, $\frac{5}{8}$ x 1 $\frac{3}{4}$    | 1        |
| 8    | 15-839       | Hydraulic Cylinder                             | 1        |
|      | 15-839-01    | Seal Kit                                       | 1        |
| 9    | HNJ-58-18    | Jam Nut, $\frac{5}{8}$ - 18                    | 1        |

# FRONT AXLE DRAWING

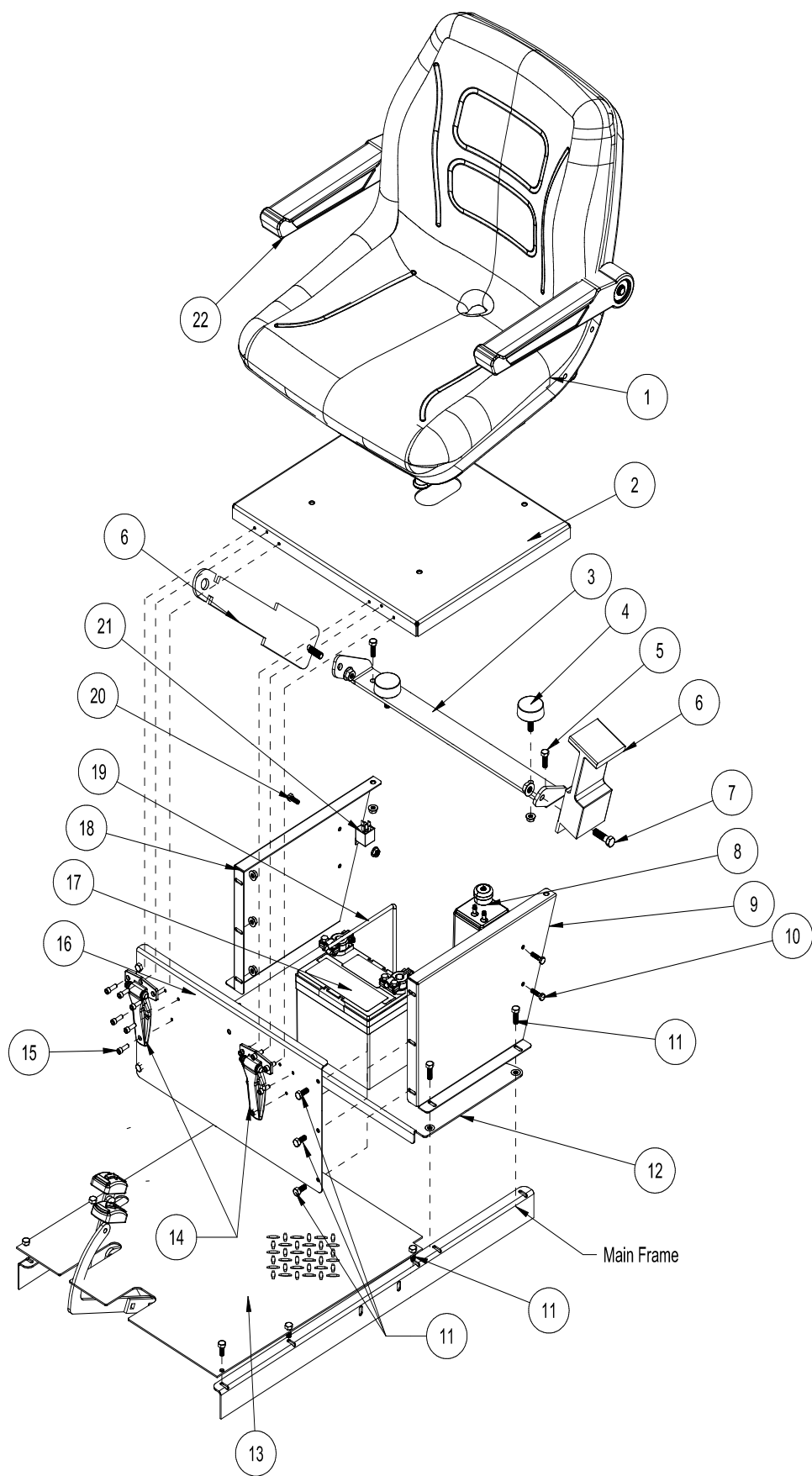


Parts

## FRONT AXLE PARTS LIST

| REF# | PART#         | DESCRIPTION                                    | QUANTITY |
|------|---------------|--|----------|
| 1    | HP-18-150     | Cotter Pin, $\frac{1}{8}$ - $1\frac{1}{2}$     | 4        |
| 2*   | HNAR-100-14   | Slotted Jam Nut, 1 -14                         | 2        |
| 3    | 52-120        | Front Tire and Rim                             | 2        |
|      | 52-120-01     | Tire, 20 x 10.00 x 10 4-ply                    | 2        |
|      | 16-857-02     | Rim  | 2        |
| 4    | HMB-100-10    | Machine Bushing, 1 x 10GA                      | 4        |
| 5    | HB-58-11-250  | Hex Bolt, $\frac{5}{8}$ -11 x $2\frac{1}{2}$   | 3        |
|      | HMB-58-14     | Machine Bushing, $\frac{5}{8}$ x 14GA          | 6        |
|      | HNTL-58-11    | Nylon Lock Nut, $\frac{5}{8}$ - 11             | 3        |
| 6    | 20-555        | U-Hex Bolt                                     | 4        |
| 7    | 18-154        | Rod End  | 3        |
|      | HG-14-28-180  | Grease Fitting, $\frac{1}{4}$ - 28 x 180°      | 3        |
| 8    | HNJ-58-18     | Jam Nut, $\frac{5}{8}$ - 18                    | 3        |
| 9    | 76-612        | Steering Linkage                               | 1        |
| 10   | 76-611        | Front Axle                                     | 1        |
| 11   | 76-610        | LH Spindle                                     | 1        |
| 12*  | 30-071        | Hub Assembly (includes * items)                | 2        |
| *    | 11-041        | Seal   | 2        |
| *    | 11-043        | Bearing  | 2        |
| 13*  | HNL-12-20     | Lug Nut, $\frac{1}{2}$ - 20                    | 10       |
| 14   | 16-076        | King Pin                                       | 2        |
| 15   | 30-251        | Bushing  | 2        |
| 16   | HB-916-18-325 | Hex Bolt, $\frac{9}{16}$ - 18 x $3\frac{1}{4}$ | 6        |
|      | HNTL-916-18   | Nylon Lock Nut, $\frac{9}{16}$ - 18            | 6        |
| 17   | 76-571        | Shackle  | 4        |
| 18   | 20-538        | Spring Mount                                   | 2        |
| 19   | HNFL-12-13    | Flange Whiz-loc Nut, $\frac{1}{2}$ - 13        | 8        |
| 20   | 20-740        | Leaf Spring                                    | 2        |
| 21   | HP-18-100     | Cotter Pin, $\frac{1}{8}$ x 1                  | 1        |
| 22   | 18-168        | $\frac{3}{8}$ Straight Elbow                   | 2        |
| 23   | HCP-58-175    | Clevis Pin, $\frac{5}{8}$ x $1\frac{3}{4}$     | 1        |
| 24   | 15-839        | Hydraulic Cylinder                             | 1        |
| 25   | 76-609        | RH Spindle                                     | 1        |
| 26   | HNAR-100-14   | Slotted Jam Nut, 1 -14                         | 2        |

# SEAT DRAWING



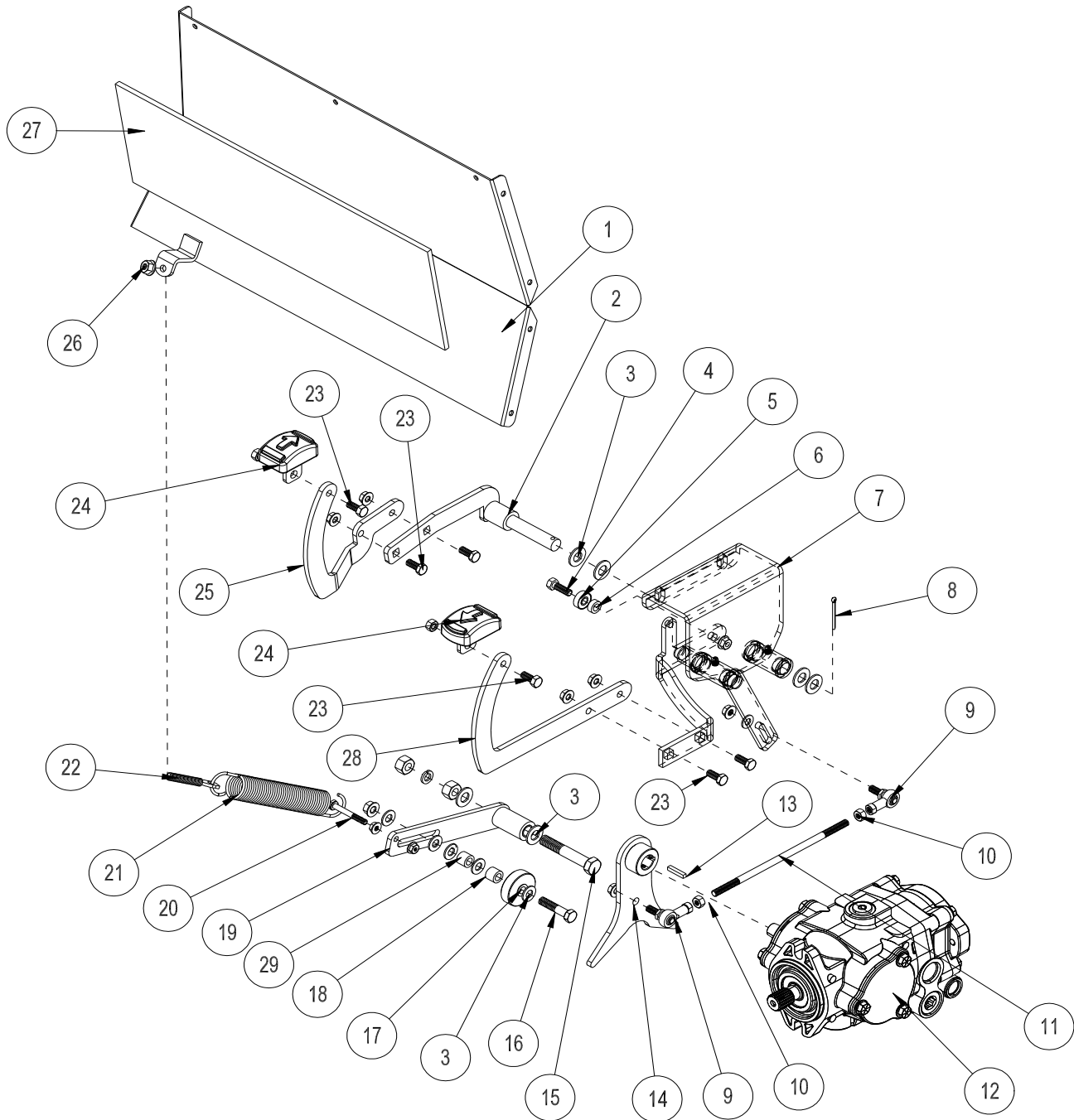
Parts



## SEAT PARTS LIST

| REF# | PART#            | DESCRIPTION                                       | QUANTITY |
|------|------------------|---|----------|
| 1    | 45-529           | Seat with Suspension                              | 1        |
|      | 45-529-01        | Seat Switch                                       | 1        |
| 2    | 76-576           | Seat Panel  | 1        |
| 3    | 76-572           | Bumper Support                                    | 1        |
| 4    | 50-081           | Rubber Insulator                                  | 2        |
|      | HNFL-38-16       | Flange Whiz-loc Nut, $\frac{3}{8}$ - 16           | 2        |
| 5    | HB-516-18-100    | Hex Bolt, $\frac{5}{16}$ - 18 x 1                 | 2        |
|      | HNTL-516-18      | Nylon Nylon Lock Nut, $\frac{5}{16}$ - 18         | 2        |
| 6    | 76-198-03        | Seat Belt   | 1        |
| 7    | HB-716-14-100    | Hex Bolt, $\frac{7}{16}$ - 14 x 1                 | 2        |
|      | HW-38            | Flat Washer, $\frac{3}{8}$                        | 2        |
|      | HNTL-716-14      | Nylon Lock Nut, $\frac{7}{16}$ - 14               | 2        |
| 8    | 8-738            | Carbon Canister Assembly                          | 1        |
|      | 8-688            | Carbon Canister Mount                             | 1        |
| 9    | 76-587           | LH Side Panel                                     | 1        |
| 10   | HB-516-18-075    | Hex Bolt, $\frac{5}{16}$ - 18 x $\frac{3}{4}$     | 2        |
|      | HNFL-516-18      | Nylon Lock Nut, $\frac{5}{16}$ - 18               | 2        |
| 11   | HB-14-20-075     | Hex Bolt, $\frac{1}{4}$ - 20 x $\frac{3}{4}$      | 16       |
|      | HW-14            | Flat Washer, $\frac{1}{4}$                        | 16       |
|      | HNFL-14-20       | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20           | 16       |
| 12   | 76-588           | Battery Tray                                      | 1        |
|      | 8803-8           | Black Trim  | 2        |
| 13   | 76-600           | Floorboard  | 1        |
| 14   | 27-055           | Black Flush Hinge                                 | 2        |
| 15   | HSMFCS-10-32-050 | Flat Head Machine Screw, #10 - 32 x $\frac{1}{2}$ | 12       |
|      | HNFL-10-32       | Flange Whiz-loc Nut, #10 - 32                     | 12       |
| 16   | 76-593           | Front Seat Panel                                  | 1        |
| 17   | 33-216           | Battery   | 1        |
| 18   | 76-586           | RH Side Panel                                     | 1        |
| 19   | 76-618           | Battery Hold-down                                 | 1        |
|      | HNFL-14-20       | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20           | 2        |
| 20   | HSM-10-32-063    | Machine Screw, #10 - 32 x $\frac{5}{8}$           | 1        |
|      | HNFL-10-32       | Flange Whiz-loc Nut, #10 - 32                     | 1        |
| 21   | 30-042-06        | Relay   | 1        |
| 22   | 45-529-02        | Arm Rests   | 1        |

# FOOT PEDAL LINKAGE DRAWING

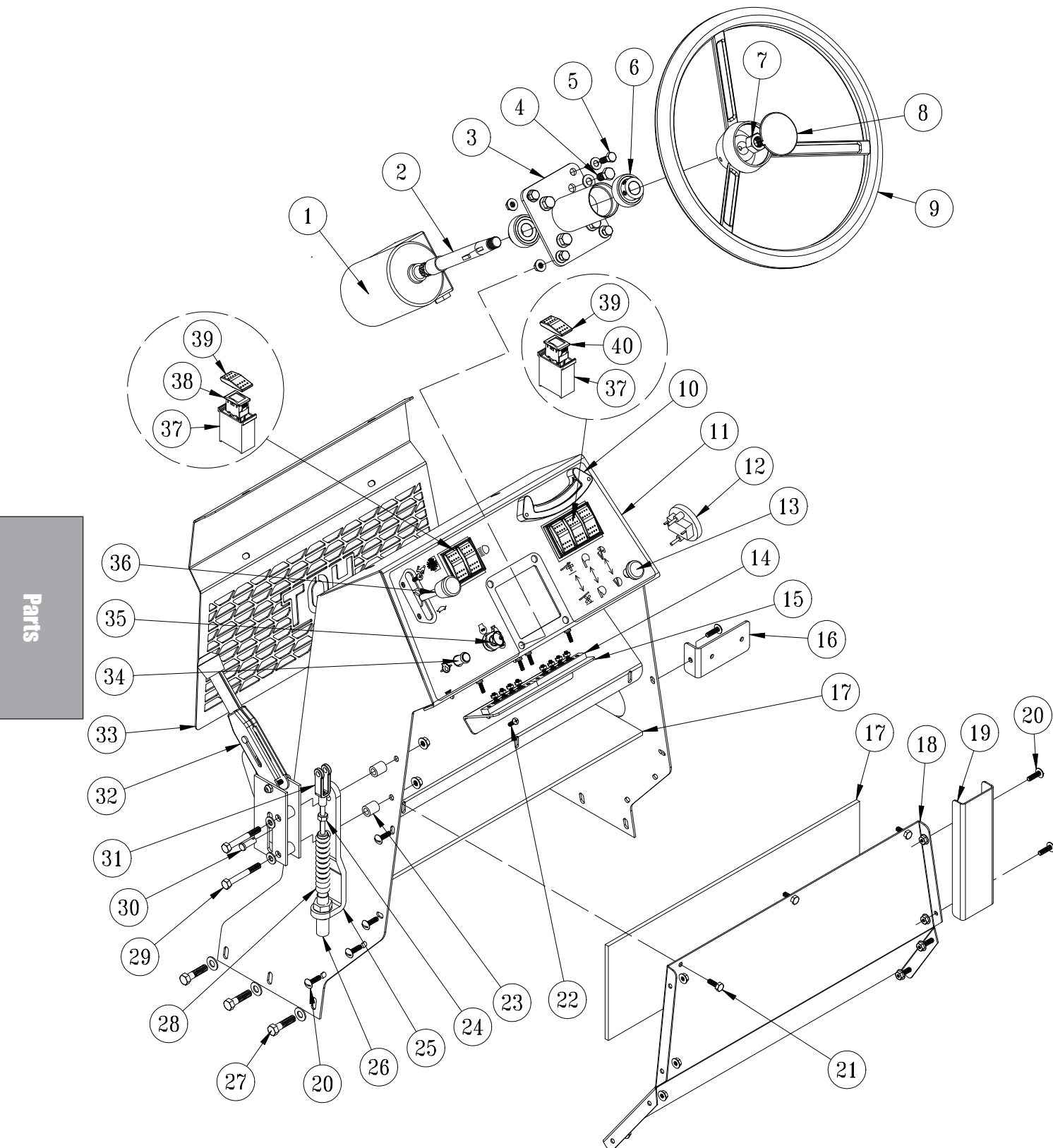


Parts

## FOOT PEDAL LINKAGE PARTS LIST

| REF# | PART#           | DESCRIPTION                                     | QUANTITY |
|------|-----------------|---|----------|
| 1    | 76-590          | Firewall  | 1        |
| 2    | 76-614          | Reverse Pedal Relay                             | 1        |
| 3    | HMB-12-14       | Machine Bushing, 1/2 x 14GA                     | 6        |
| 4    | HB-516-18-125   | Hex Bolt, 5/16 - 18 x 1 1/4                     | 1        |
|      | HNFL-516-18     | Flange Whiz-loc Nut, 5/16 - 18                  | 1        |
| 5    | 8-601           | Micro Ball Bearing                              | 1        |
| 6    | 8-622           | Spacer  | 1        |
| 7    | 76-613          | Pedal Relay                                     | 1        |
|      | HG-14-28-180    | Grease Fitting, 1/4 - 28 x 180°                 | 2        |
| 8    | HP-18-100       | Cotter Pin, 1/8 x 1                             | 1        |
| 9    | 18-441          | Ball Joint, 5/16 - 24                           | 2        |
| 10   | HN-516-24       | Hex Nut, 5/16 - 24                              | 4        |
| 11   | 43-220          | Speed Boss Link                                 | 1        |
| 12   | 76-638          | Hydrostatic Pump                                | 1        |
| 13   | HKSQ-14-150     | Square Key, 1/4 x 1 1/2                         | 1        |
| 14   | 76-607          | Swash Arm                                       | 1        |
| 15   | HB-12-13-300    | Hex Bolt, 1/2 - 13 x 3                          | 1        |
|      | HWL-12          | Lock Washer, 1/2                                | 1        |
|      | HNTL-12-13      | Nylon Lock Nut, 1/2 - 13                        | 1        |
| 16   | HB-38-16-175    | Hex Bolt, 3/8 - 16 x 1 3/4                      | 1        |
|      | HW-38           | Flat Washer, 3/8                                | 5        |
|      | HNTL-38-16      | Nylon Lock Nut, 3/8 - 16                        | 1        |
| 17   | 14-266          | Ball Bearing                                    | 1        |
| 18   | 18-270          | Oilite Bushing                                  | 1        |
| 19   | 76-606          | Idler Arm                                       | 1        |
|      | HG-14-28-180    | Grease Fitting, 1/4 - 28 x 180°                 | 1        |
| 20   | HB-14-20-200    | Hex Bolt, 1/4 - 20 x 2                          | 1        |
|      | HNFL-14-20      | Flange Whiz-loc Nut, 1/4 -20                    | 2        |
| 21   | 21-445          | Spring  | 1        |
| 22   | 42-537          | Spade Hex Bolt, 3/8                             | 1        |
| 23   | HBCL-516-18-075 | Low Shoulder Carriage Hex Bolt, 5/16 - 18 x 3/4 | 6        |
|      | HNFL-516-18     | Flange Whiz-loc Nut, 5/16 - 18                  | 6        |
| 24   | 45-022          | Molded Foot Pedal                               | 2        |
| 25   | 76-566          | Reverse Pedal Arm                               | 1        |
| 26   | HNTL-38-16      | Nylon Lock Nut, 3/8 - 16                        | 1        |
| 27   | 9023            | Ceramic Mat, 7" x 20"                           | 1 Sheet  |
| 28   | 76-565          | Forward Pedal Arm                               | 1        |
| 29   | 10-134          | Spacer  | 1        |

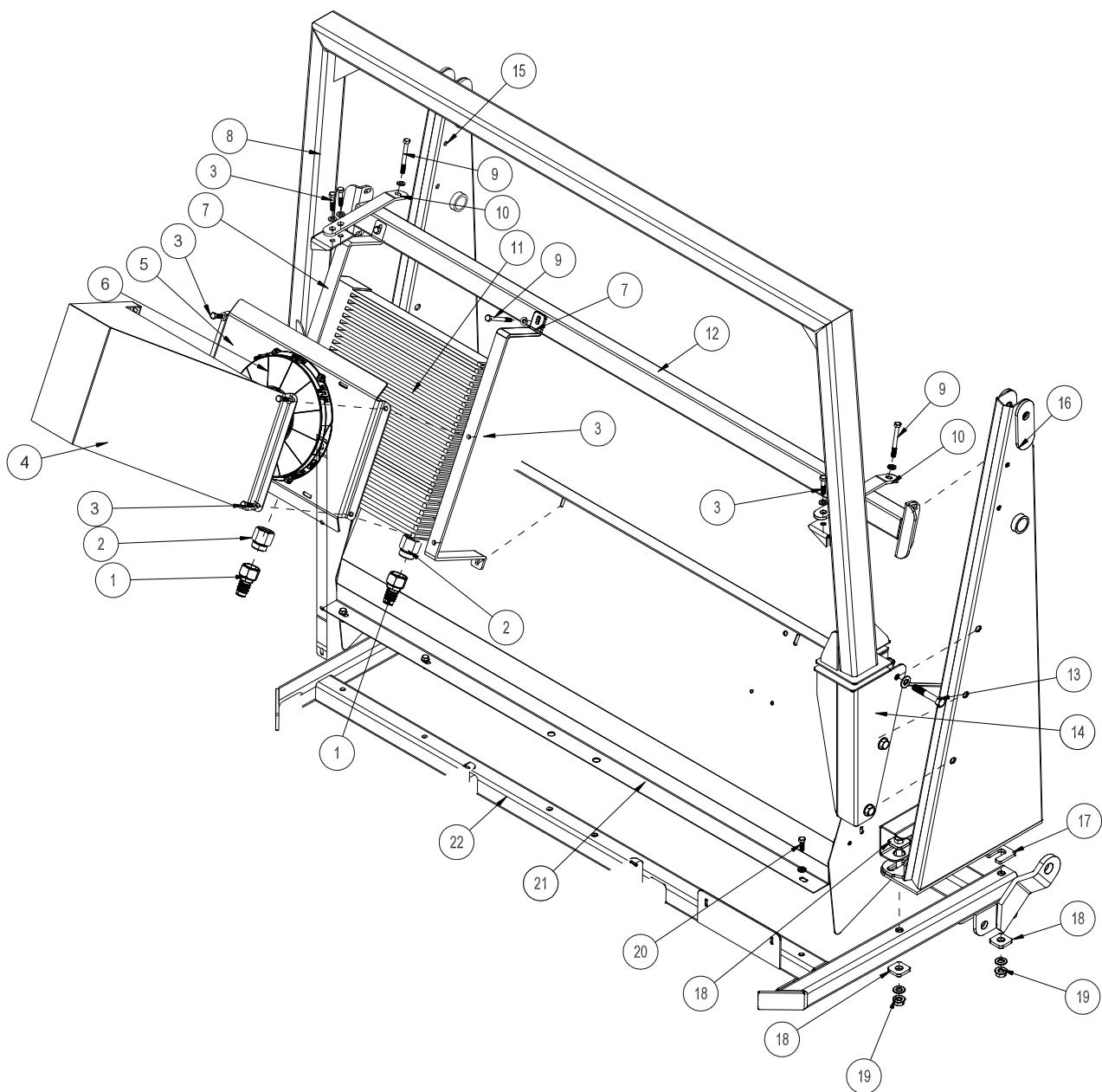
# DASH PANEL DRAWING



Parts

# DASH PANEL PARTS LIST

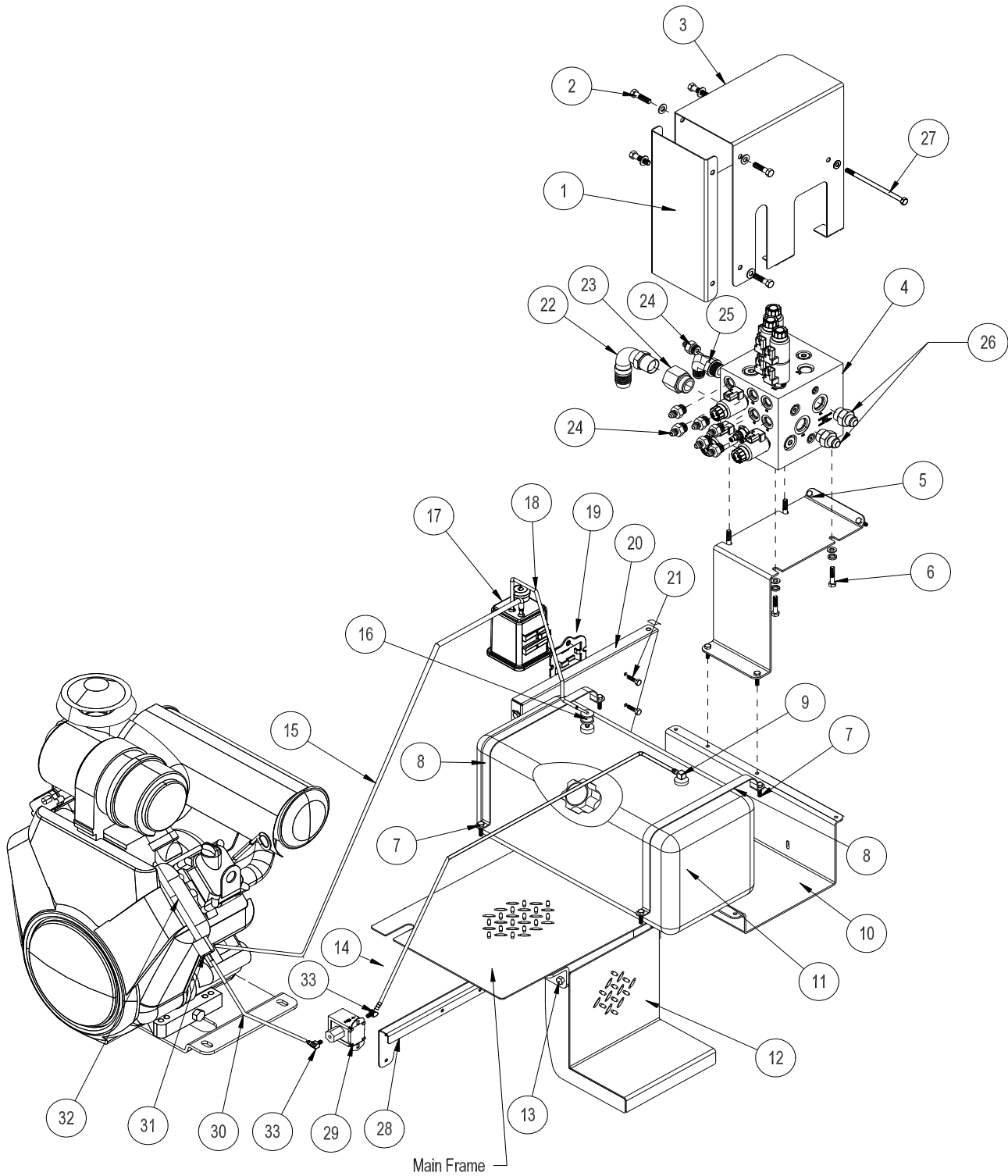
| REF# | PART#          | DESCRIPTION   | QUANTITY |
|------|----------------|---|----------|
| 1    | 76-559         | Orbitrol  | 1        |
| 2    | 45-440         | Splined Shaft   | 1        |
|      | HWK-316-063    | Woodruff Key, $\frac{3}{16} \times \frac{5}{8}$         | 1        |
| 3    | 76-530         | Steering Column   | 1        |
| 4    | HBM-10-1.5-20  | Metric Hex Bolt, #10 - 1.5 x 20                         | 4        |
|      | HWLM-10        | Metric Lock Washer, #10                                 | 4        |
| 5    | HB-516-18-100  | Hex Bolt, $\frac{5}{16}$ - 18 x 1                       | 4        |
|      | HNFL-516-18    | Flange Whiz-loc Nut, $\frac{5}{16}$ - 18                | 4        |
| 6    | 45-155         | Flange Bearing  | 2        |
| 7    | HNJ-58-18      | Jam Nut, $\frac{5}{8}$ - 18                             | 1        |
| 8    | 21-499         | Center Cap  | 1        |
| 9    | 21-498         | 15" Steering Wheel                                      | 1        |
| 10   | 76-372         | Inclinometer  | 1        |
| 11   | 76-660         | Dash Console  | 1        |
|      | 76-536         | Decal, Dash Panel                                       | 1        |
| 12   | 12-804         | Hour Meter  | 1        |
| 13   | 11-086         | Choke Cable   | 1        |
| 14   | 8935           | Buss Bar  | 2        |
| 15   | 76-657         | Buss Bar Mount  | 1        |
| 16   | 76-658         | Hose Bracket  | 1        |
| 17   | 9023           | Ceramic Foil (7" x 20")                                 | 1 Sheet  |
| 18   | 76-590         | Firewall  | 1        |
| 19   | 76-568         | Wire Channel  | 1        |
| 20   | HSTP-14-20-075 | Truss Head Hex Bolt, $\frac{1}{4}$ - 20 x $\frac{3}{4}$ | 8        |
|      | HNFL-14-20     | Nylon Lock Nut, $\frac{1}{4}$ - 20                      | 8        |
| 21   | HB-14-20-075   | Hex Bolt, $\frac{1}{4}$ - 20 x $\frac{3}{4}$            | 3        |
|      | HNFL-14-20     | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20                 | 3        |
| 22   | HSM-10-32-063  | Machine Screw, #10 - 32 x $\frac{5}{8}$                 | 6        |
|      | HNFL-10-32     | Flange Whiz-loc Nut, #10 - 32                           | 6        |
| 23   | 10-134         | Spacer  | 2        |
| 24   | HN-516-24      | Nut, $\frac{5}{16}$ - 24                                | 1        |
| 25   | 45-605         | Park Brake Bracket                                      | 1        |
| 26   | 76-225         | Brake Cable   | 1        |
| 27   | HB-516-18-125  | Hex Bolt, $\frac{5}{16}$ - 18 x $1\frac{1}{4}$          | 6        |
|      | HW-516         | FLat Washer, $\frac{5}{16}$                             | 6        |
|      | HNTL-516-18    | Nylon Lock Nut, $\frac{5}{16}$ - 18                     | 6        |
| 28   | 60-536         | Bellow  | 1        |
| 29   | HB-516-18-250  | Hex Bolt, $\frac{5}{16}$ - 18 x $2\frac{1}{2}$          | 2        |
|      | HNTL-516-18    | Nylon Lock Nut, $\frac{5}{16}$ - 18                     | 2        |
| 30   | HCP-516-100    | Clevis Pin, $\frac{5}{16} \times 1$                     | 1        |
|      | HP-18-100      | Cotter Pin, $\frac{1}{8} \times 1$                      | 1        |
| 31   | 11-100         | Yoke  | 1        |
| 32   | 60-106         | Brake Lever w/ Kit                                      | 1        |
| 33   | 76-659         | Muffler Guard   | 1        |
| 34   | 50-539         | Warning Indicator Light                                 | 1        |
| 35   | 13-488         | Ignition Switch   | 1        |
| 36   | 45-118         | Throttle Cable  | 1        |
|      | HSM-10-32-063  | Machine Screw, #10 - 32 x $\frac{5}{8}$                 | 2        |
|      | HNFL-10-32     | Flange Whiz-loc Nut, #10 - 32                           | 2        |
| 37   | 15-725         | Mount Panel, End  | 4        |
|      | 15-729         | Mount Panel, Middle                                     | 1        |
| 38   | 15-782         | Unlit Switch, On-none-On                                | 2        |
| 39   | 15-727         | Rocker, Unlit   | 5        |
| 40   | 15-728         | Centering Switch, On-Off-On                             | 3        |



## OIL COOLER AND ROPS DRAWING

# OIL COOLER AND ROPS PARTS LIST

| REF# | PART# | DESCRIPTION | QUANTITY |
|------|-------|-------------|----------|
|------|-------|-------------|----------|



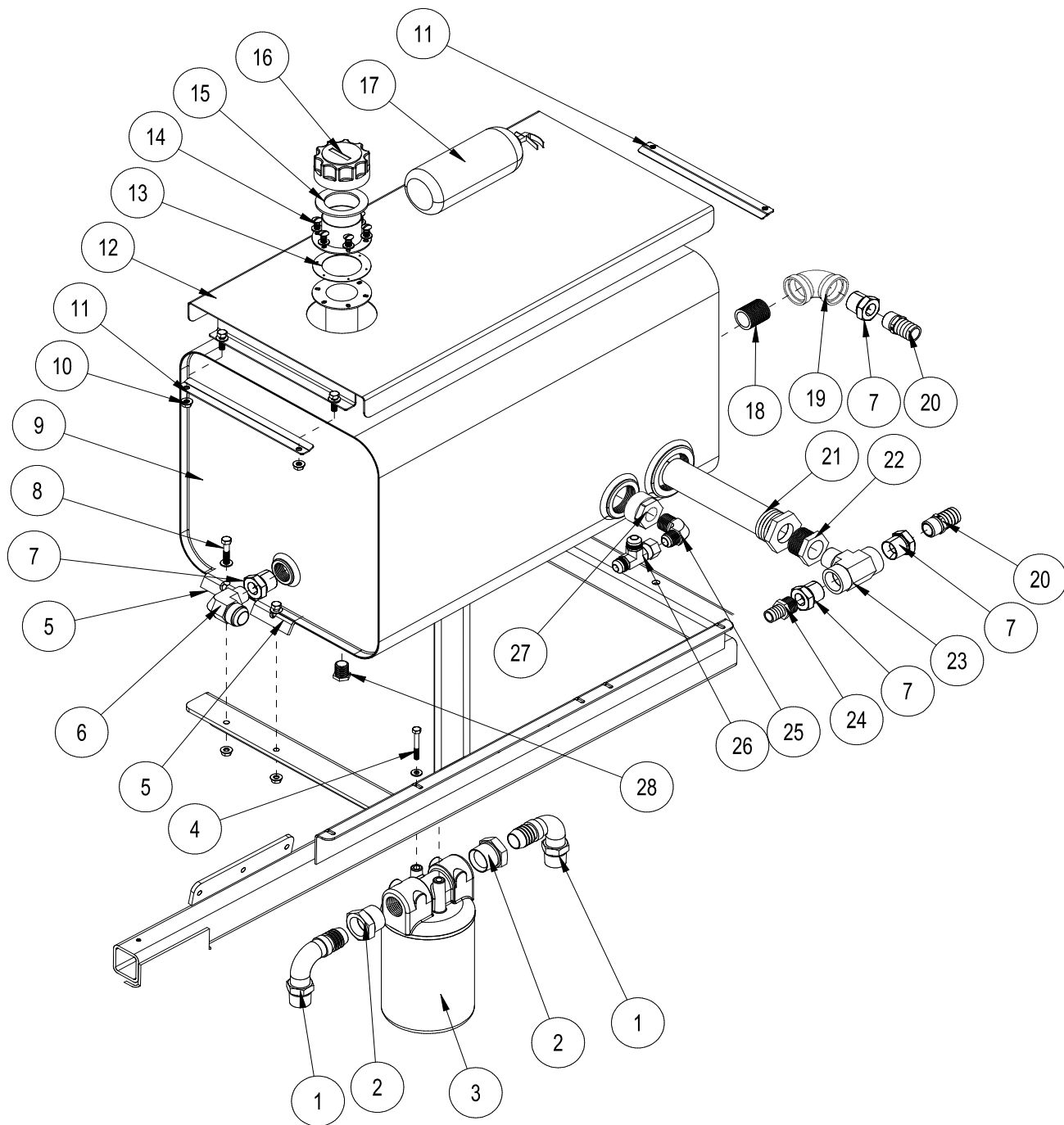
Parts



## GAS TANK AND MANIFOLD DRAWING

# GAS TANK AND MANIFOLD PARTS LIST

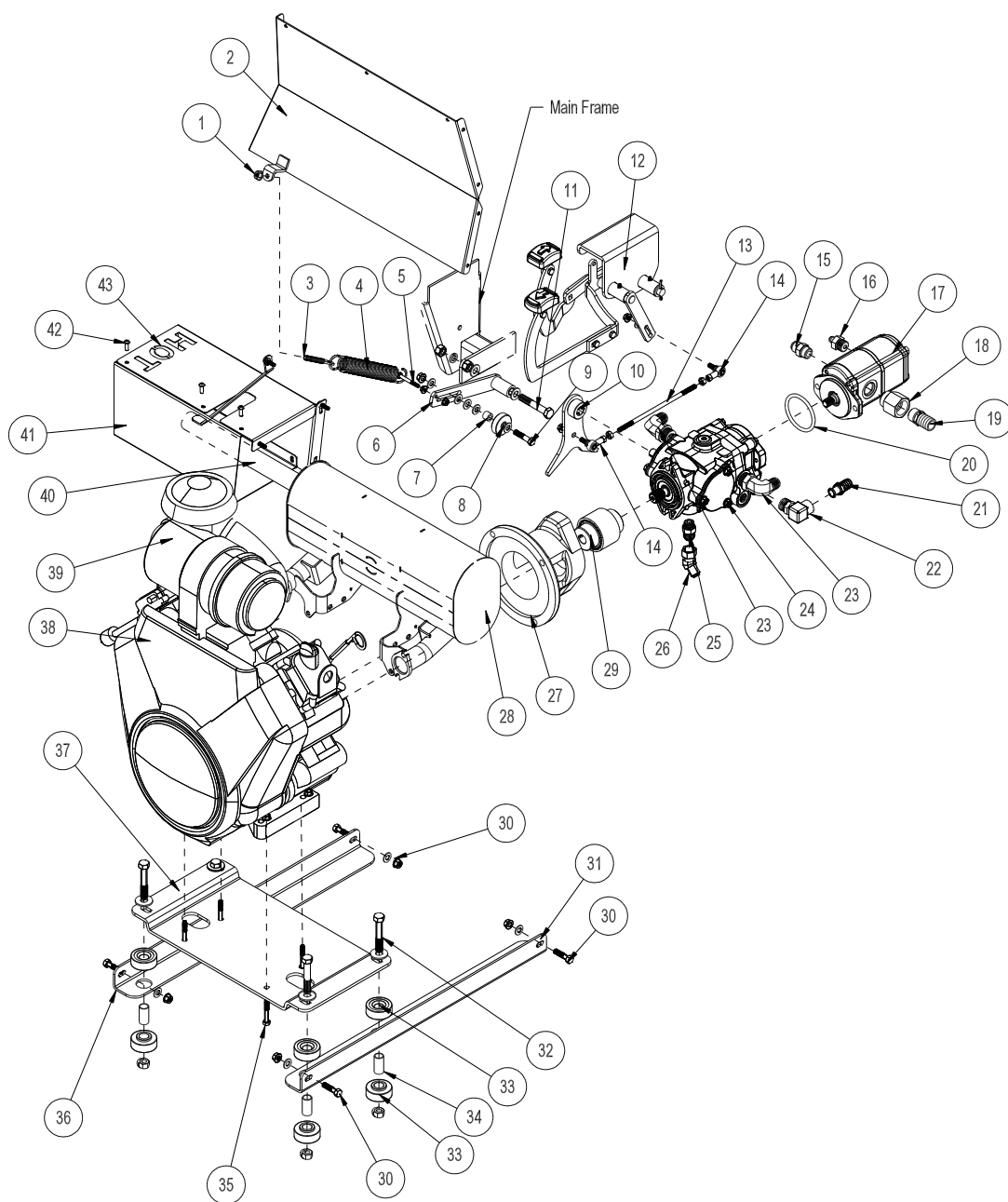
| REF# | PART#  | DESCRIPTION | QUANTITY |
|------|--------|-------------|----------|
| 1    | 76-601 | Cover Panel | 1        |



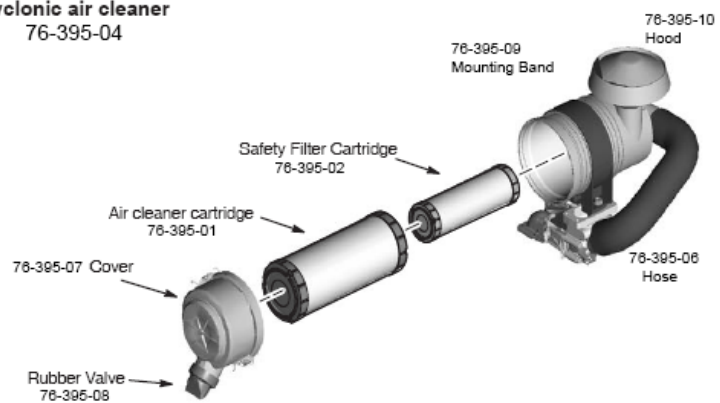
Parts

|    |               |   |   |
|----|---------------|---|---|
| 2  | HB-516-18-100 | Hex Bolt, $\frac{5}{16}$ - 18 x 1             | 4 |
|    | HW-516        | Flat Washer, $\frac{5}{16}$                   | 4 |
|    | HNTL-516-18   | Nylon Lock Nut, $\frac{5}{16}$ - 18           | 4 |
| 3  | 76-603        | Manifold Cover                                | 1 |
| 4  | 76-560        | Hydraulic Manifold                            | 1 |
| 5  | 76-599        | Valve Mount                                   | 1 |
|    | HB-14-20-124  | Hex Bolt, $\frac{1}{4}$ - 20 x $1\frac{1}{4}$ | 4 |
|    | HNFL-14-20    | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20       | 4 |
| 6  | HB-38-16-150  | Hex Bolt, $\frac{3}{8}$ - 16 x $1\frac{1}{2}$ | 4 |
|    | HWL-38        | Lock Washer, $\frac{3}{8}$                    | 4 |
|    | HMB-12-14     | Machine Bushing, $\frac{1}{2}$ x 14GA         | 4 |
| 7  | HB-14-20-250  | Hex Bolt, $\frac{1}{4}$ - 20 x $2\frac{1}{2}$ | 2 |
|    | HW-14         | Flat Washer, $\frac{1}{4}$                    | 2 |
|    | HNFL-14-20    | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20       | 2 |
| 8  | 76-585        | Gas Tank Strap                                | 2 |
| 9  |               | Top Draw                                      | 1 |
| 10 | 76-591        | Gas Tank Bracket                              | 1 |
| 11 | 76-546        | CARB Gas Tank - 8 Gallon                      | 1 |
| 12 | 76-605        | Step  | 1 |
| 13 | HB-38-16-100  | Hex Bolt, $\frac{3}{8}$ - 16 x 1              | 2 |
|    | HNTL-38-16    | Nylon Lock Nut $\frac{3}{8}$ - 16             | 2 |
| 14 | 8800-44       | $\frac{1}{4}$ " Fuel Line x 44"               | 1 |
|    | 18-186        | Hose Clamp                                    | 2 |
| 15 | 9025-60       | $\frac{3}{16}$ " Fuel Line x 60"              | 1 |
|    | 18-186        | Hose Clamp                                    | 2 |
| 16 |               | Roll-over Valve                               | 1 |
| 17 | 8-738         | Carbon Canister Assembly                      | 1 |
| 18 | 8800-19       | $\frac{1}{4}$ " Fuel Line x 19"               | 1 |
|    | 18-186        | Hose Clamp                                    | 2 |
| 19 | 8-688         | Carbon Canister Mount                         | 1 |
| 20 | 76-587        | LH Side Panel                                 | 1 |
| 21 | HB-14-20-075  | Hex Bolt, $\frac{1}{4}$ - 20 x $\frac{3}{4}$  | 2 |
|    | HNFL-14-20    | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20       | 2 |
| 22 | 18-397        | 90° Hose Barb                                 | 1 |
| 23 | 18-471        | Straight Thread Reducer                       | 1 |
| 24 | 18-241        | Straight Thread Connector                     | 7 |
| 25 | 18-204        | Elbow   | 1 |
| 26 | 15-702        | Adapter                                       | 2 |
| 27 | HB-516-18-700 | Hex Bolt, $\frac{5}{16}$ - 18 x 7             | 1 |
|    | HW-516        | Flat Washer, $\frac{5}{16}$                   | 2 |
|    | HNTL-516-18   | Nylon Lock Nut, $\frac{5}{16}$ - 18           | 1 |
| 28 | 76-632        | Fuel Pump Mount                               | 1 |
| 29 | 76-757        | Electric Fuel Pump                            | 1 |
| 30 | 8800-18       | $\frac{1}{4}$ " Fuel Line x 18"               | 1 |
|    | 18-186        | Hose Clamp                                    | 2 |
| 31 | 50-403        | Inline Fuel Filter                            | 1 |
| 32 | 8800-14       | $\frac{1}{4}$ " Fuel Line x 14"               | 1 |
|    | 18-186        | Hose Clamp                                    | 2 |
| 33 | 18-420        | 45° Barb                                      | 2 |

# OIL TANK DRAWING



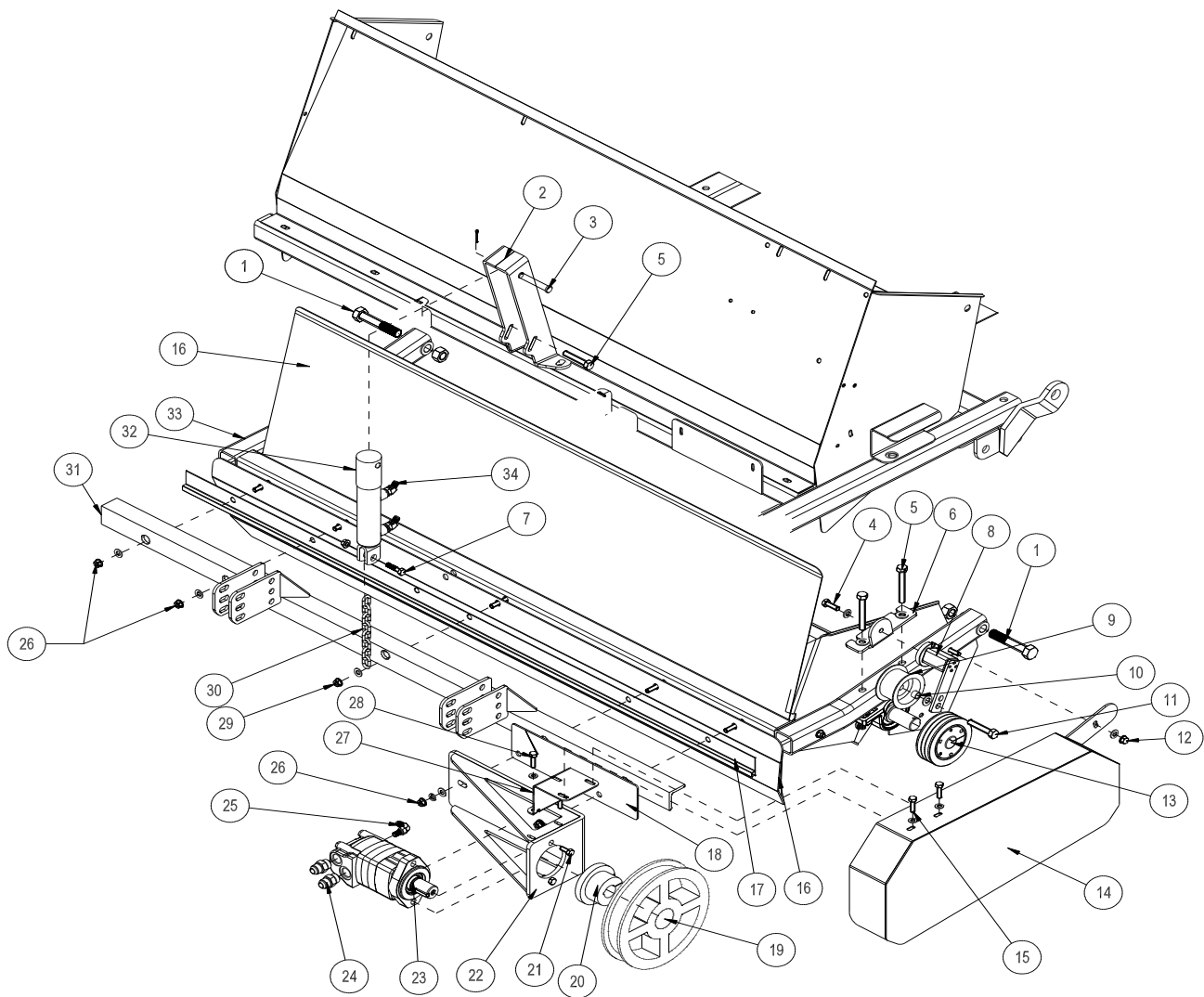
**Cyclonic air cleaner**  
76-395-04



# OIL TANK PARTS LIST

| REF# | PART#         | DESCRIPTION                   | QUANTITY |
|------|---------------|-------------------------------|----------|
| 1    | 18-397        | 90° Hose Barb                 | 2        |
| 2    | 18-396        | Reducer                       | 2        |
| 3    | 72-146        | Oil Filter Assembly           | 1        |
|      | 60-334        | Filter Element                | 1        |
| 4    | HB-14-20-200  | Hex Bolt, 1/4 - 20 x 2        | 2        |
|      | HW-14         | Washer, 1/4                   | 2        |
| 5    | 75-792        | Tank Hold-down                | 4        |
| 6    | 18-472        | Elbow                         | 1        |
| 7    | 18-107        | Pipe Thread Reducer           | 4        |
| 8    | HB-516-18-150 | Hex Bolt, 5/16 - 18 x 1 1/2   | 3        |
|      | HW-516        | Washer, 5/16                  | 3        |
|      | HNTL-516      | Nylon Lock Nut, 5/16 - 18     | 3        |
| 9    | 76-545        | Oil Tank                      | 1        |
| 10   | HNFL-14-20    | Flange Whiz-loc Nut, 1/4 - 20 | 4        |
|      | HW-14         | Washer, 1/4                   | 4        |
|      | HB-14-20-075  | Hex Bolt, 1/4 - 20 x 3/4      | 4        |
| 11   | 76-592        | Cover Strap                   | 2        |
| 12   | 76-602        | Tank Cover                    | 1        |
| 13   | 13-586-02     | Bottom Gasket                 | 1        |
| 14   | 13-586-03     | Filler Neck                   | 1        |
|      | HSM-10-32-063 | Machine Screw, #10-32 x 5/8   | 6        |
|      | HWL-10        | Lock Washer, #10              | 6        |
| 15   | 13-586-01     | Cap Gasket                    | 1        |
| 16   | 13-747        | Filler Breather               | 1        |
| 17   | 76-354        | Fire Extinguisher             | 1        |
| 18   | 18-120        | 1" Black Nipple               | 1        |
| 19   | 18-050        | 1" Black Elbow                | 1        |
| 20   | 18-250        | Barb Fitting                  | 2        |
| 21   | 76-564        | Tank Strainer                 | 1        |
| 22   | 16-824        | Pipe Reducer Bushing          | 1        |
| 23   | 18-473        | Branch Tee                    | 1        |
| 24   | 18-249        | Barb Fitting                  | 1        |
| 25   | 23-071        | Male Connector                | 1        |
| 26   | 34-058        | Swivel Tee                    | 1        |
| 27   | 18-280        | Reducer Bushing               | 1        |
| 28   | 18-069        | Pipe Plug, 1/2"               | 1        |

# ENGINE AND EXHAUST DRAWING

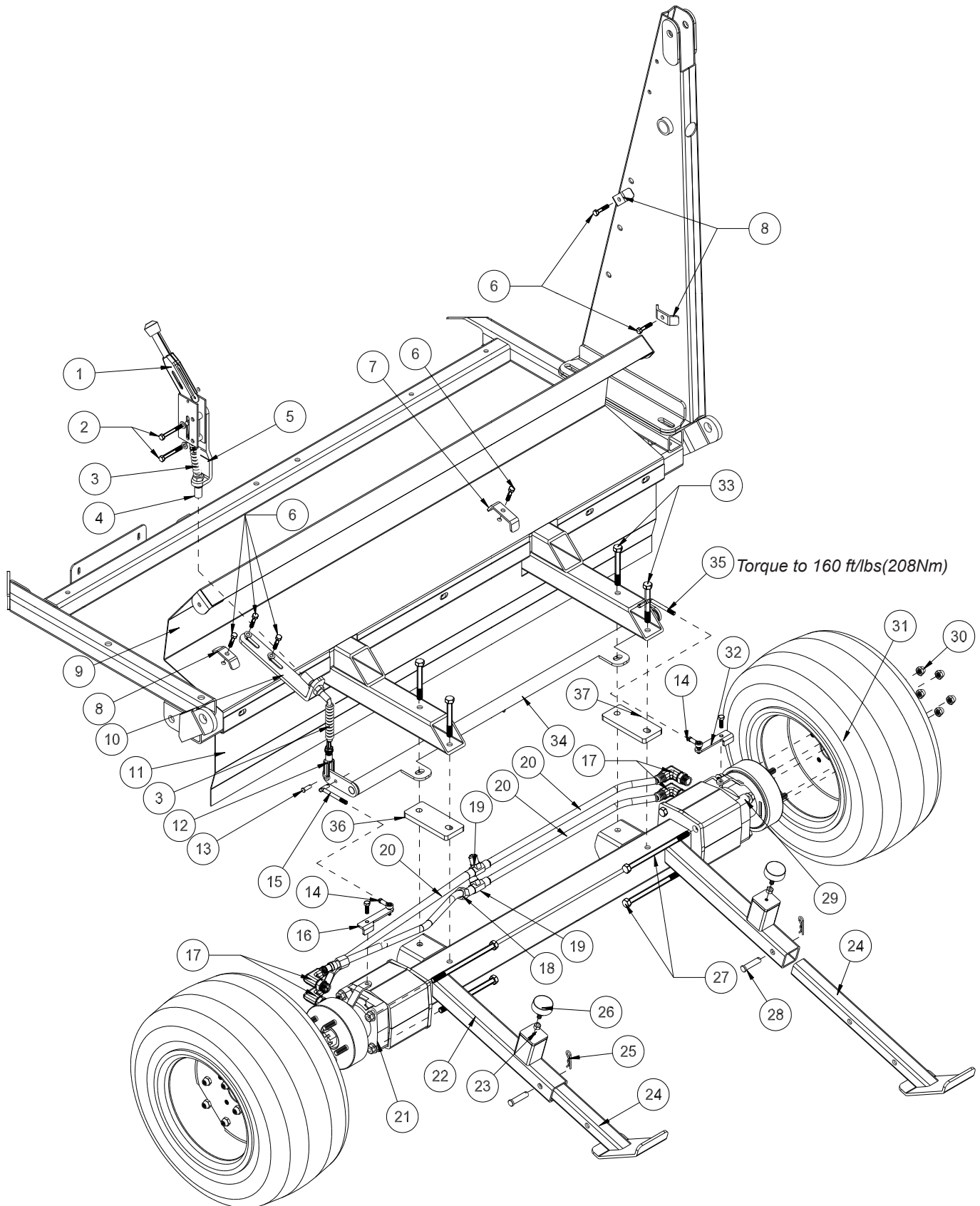


Parts

# ENGINE AND EXHAUST PARTS LIST

| REF# | PART#          | DESCRIPTION                                       | QUANTITY |
|------|----------------|---|----------|
| 1    | HNTL-38-16     | Nylon Lock Nut, $\frac{3}{8}$ - 16                | 1        |
| 2    | 76-590         | Firewall  | 1        |
|      | 9023           | Ceramic Foil (7" x 20")                           | 1 Sheet  |
| 3    | 42-537         | Spade Hex Bolt, $\frac{3}{8}$                     | 1        |
| 4    | 21-445         | Spring  | 1        |
| 5    | HB-14-20-200   | Hex Bolt, $\frac{1}{4}$ - 20 x 2                  | 1        |
|      | HNFL-14-20     | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20           | 2        |
| 6    | 76-606         | Idler Arm   | 1        |
|      | HG-14-28-180   | Grease Fitting, $\frac{1}{4}$ - 28 x 180°         | 1        |
| 7    | 18-270         | Oilite Bushing                                    | 1        |
| 8    | 14-266         | Ball Bearing                                      | 1        |
| 9    | HB-38-16-175   | Hex Bolt, $\frac{3}{8}$ - 16 x $1\frac{3}{4}$     | 1        |
|      | HW-38          | Flat Washer, $\frac{3}{8}$                        | 5        |
|      | HNTL-38-16     | Nylon Lock Nut, $\frac{3}{8}$ - 16                | 1        |
| 10   | 76-607         | Swash Arm   | 1        |
| 11   | HB12-13-300    | Hex Bolt, $\frac{1}{2}$ - 13 x 3                  | 1        |
|      | HWL-12         | Lock Washer, $\frac{1}{2}$                        | 1        |
|      | HNTL-12-13     | Nylon Lock Nut, $\frac{1}{2}$ - 13                | 1        |
| 12   | 76-613         | Pedal Relay                                       | 1        |
|      | HG-14-28-180   | Grease Fitting, $\frac{1}{4}$ - 28 x 180°         | 2        |
| 13   | 43-220         | Speed Boss Link                                   | 1        |
| 14   | 18-441         | Ball Joint, $\frac{5}{16}$ - 24                   | 2        |
|      | HN-516-24      | Hex Nut, $\frac{5}{16}$ - 24                      | 4        |
| 15   | 18-505         | Straight Thread Connector                         | 1        |
| 16   | 18-331         | Adapter   | 1        |
| 17   | 76-540         | Gear Pump   | 1        |
| 18   | 23-136         | Straight Thread Reducer                           | 1        |
| 19   | 18-250         | Barb Fitting                                      | 1        |
| 20   | 23-145         | O-ring  | 1        |
| 21   | 18-133         | Barb Fitting                                      | 1        |
| 22   | 23-130         | Elbow   | 1        |
| 23   | 18-204         | Elbow   | 2        |
| 24   | 76-638         | Hydrostatic Pump                                  | 1        |
| 25   | 18-267         | Straight Thread Connector                         | 1        |
| 26   | 18-273         | Fitting   | 1        |
| 27   | 76-537         | Pump Adapter                                      | 1        |
| 28   | 76-625         | Muffler   | 1        |
|      | 76-749-01      | Exhaust Gasket                                    | 2        |
| 29   | 76-465         | Coupling Complete                                 | 1        |
|      | 76-466         | $\frac{7}{8}$ " Coupler Half                      |          |
|      | 76-467         | $1\frac{1}{8}$ " Coupler Half                     |          |
|      | 76-468         | Coupler Sleeve                                    |          |
| 30   | HB-38-16-150   | Hex Bolt, $\frac{3}{8}$ - 16 x $1\frac{1}{2}$     | 4        |
|      | HW-38          | Flat Washer, $\frac{3}{8}$                        | 4        |
|      | HNTL-38-16     | Nylon Lock Nut, $\frac{3}{8}$ - 16                | 4        |
| 31   | 76-579         | LH Motor Mount                                    | 1        |
| 32   | HB-38-16-225   | Hex Bolt, $\frac{3}{8}$ - 16 x $2\frac{1}{4}$     | 4        |
|      | HW-38          | Flat Washer, $\frac{3}{8}$                        | 4        |
|      | HNTL-38-16     | Nylon Lock Nut, $\frac{3}{8}$ - 16                | 4        |
| 33   | 60-107         | Rubber Bushing                                    | 8        |
| 34   | 60-168         | Spacer  | 4        |
| 35   | HB-716-14-150  | Hex Bolt, $\frac{7}{16}$ - 14 x $1\frac{1}{2}$    | 4        |
|      | HWL-716        | Lock Washer, $\frac{7}{16}$                       | 4        |
| 36   | 76-578         | RH Motor Mount                                    | 1        |
| 37   | 76-582         | Engine Plate                                      | 1        |
| 38   | 76-749         | Briggs 35HP Engine                                | 1        |
| 39   | 76-395-04      | Cyclonic Air Cleaner (comes with engine)          | 1        |
| 40   | 76-626         | Tailpipe  | 1        |
|      | 50-111         | Muffler Clamp                                     | 1        |
| 41   | 76-630         | Bottom Heat Shield                                | 1        |
|      | 9023           | Ceramic Mat (13 x 13.5)                           | 1        |
| 42   | HSTP-14-20-075 | Machine Screw, $\frac{1}{4}$ - 20 x $\frac{3}{4}$ | 6        |
|      | HNFL-14-20     | Flange Whiz-loc Nut, $\frac{1}{4}$ - 20           | 6        |

Parts





## REEL BELT DRIVE DRAWING

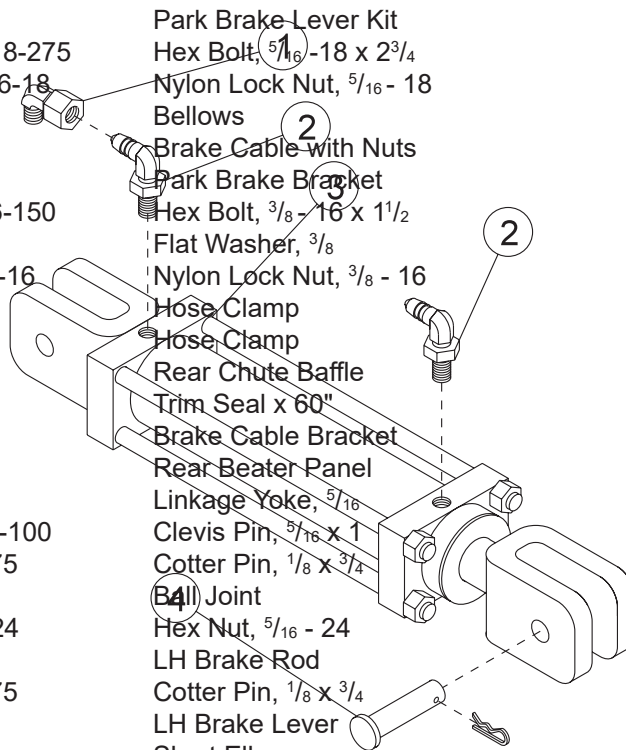
# REEL BELT DRIVE PARTS LIST

| REF# | PART#          | DESCRIPTION  | QUANTITY |
|------|----------------|--|----------|
| 1    | HB-34-10-400   | Hex Bolt, $\frac{3}{4}$ -10 x 4                                | 2        |
|      | HNTL-34-10     | Nylon Lock Nut, $\frac{3}{4}$ -10                              | 2        |
| 2    | 75-827         | Cylinder Bracket   | 1        |
| 3    | HCP-12-350     | Clevis Pin, $\frac{1}{2}$ x 3 $\frac{1}{2}$                    | 1        |
|      | HP-18-100      | Cotter Pin, $\frac{1}{8}$ x 1                                  | 1        |
| 4    | HBM-10-1.5-30  | Metric Hex Bolt, 10-1.5 x 30 (part of 78-224)                  | 1        |
|      | HWLM-10        | Metric Lock Washer, 10 (part of 78-224)                        | 1        |
| 5    | HB-12-13-400   | Hex Bolt, $\frac{1}{2}$ -13 x 4                                | 5        |
|      | HMB-12-14      | Machine Bushing, $\frac{1}{2}$ x 14GA                          | 4        |
|      | HNTL-12-13     | Nylon Lock Nut, $\frac{1}{2}$ -13                              | 5        |
| 6    | 76-569         | Idler Mount  | 1        |
| 7    | HB-38-16-150   | Hex Bolt, $\frac{3}{8}$ -16 x 1 $\frac{1}{2}$                  | 1        |
| 8    | HNTL-38-16     | Nylon Lock Nut, $\frac{3}{8}$ -16                              | 1        |
| 9    | 78-224         | Belt Tensioner   | 1        |
| 10   | 16-013         | Idler Pulley   | 1        |
| 11   | 34-215         | Spacer   | 1        |
| 12   | HB-12-13-250   | Hex Bolt, $\frac{1}{2}$ -13 x 2 $\frac{1}{2}$ (part of 78-224) | 1        |
|      | HMB-12-14      | Machine Bushing, $\frac{1}{2}$ x 14GA                          | 5        |
|      | HNTL-12-13     | Center Nylon Lock Nut, $\frac{1}{2}$ -13 (part of 78-224)      | 1        |
| 13   | HB-38-16-300   | Hex Bolt, $\frac{3}{8}$ -16 x 3                                | 1        |
|      | HW-38          | Flat Washer, $\frac{3}{8}$                                     | 1        |
|      | HNTL-38-16     | Nylon Lock Nut, $\frac{3}{8}$ -16                              | 1        |
| 14   | 78-425         | Pulley, 3-Groove   | 1        |
|      | 78-431         | Hub  | 1        |
| 15   | 76-604         | Belt Guard   | 1        |
| 16   | HBFL-16-18-075 | Flange Hex Bolt, $\frac{1}{2}$ -18 x 75                        | 1        |
|      | HNFL-516-18    | Flange Whiz-loc Nut, $\frac{1}{2}$ -18                         | 1        |
| 17   | 75-808         | Front Baffle   | 1        |
| 18   | 76-438         | Brush Channel  | 1        |
| 19   | 76-598         | Shim   | 1        |
| 20   | 76-581         | Pulley, 3-groove   | 1        |
|      | 76-580         | Hub  | 1        |
| 21   | HWK-516-18     | Woodruff Key, $\frac{5}{16}$ x 1                               | 1        |
| 22   | HB-12-13-120   | Hex Bolt, $\frac{1}{2}$ -13 x 2                                | 2        |
| 23   | HWL-12         | Washer, $\frac{1}{2}$  | 2        |
| 24   | 76-608         | Motor  | 1        |
| 25   | 76-539         | Reel Motor   | 1        |
| 26   | 18-505         | Straight Thread  | 2        |
| 27   | 18-478         | Elbow  | 1        |
| 28   | HB-38-16-350   | Hex Bolt, $\frac{3}{8}$ -16 x 3 $\frac{1}{2}$                  | 4        |
| 29   | HW-38          | Flat Washer, $\frac{3}{8}$                                     | 8        |
| 30   | HNTL-38-16     | Nylon Lock Nut, $\frac{3}{8}$ -16                              | 4        |
| 31   | 76-567         | Belt Guard Mount   | 1        |
| 32   | HB-14-20-075   | Hex Bolt, $\frac{1}{2}$ -20 x $\frac{3}{4}$                    | 2        |
| 33   | HNFL-14-20     | Flange Whiz-loc Nut, $\frac{1}{4}$ -20                         | 2        |
| 34   | HB-38-16-400   | Hex Bolt, $\frac{3}{8}$ -16 x 4                                | 1        |
|      | HW-38          | Washer, $\frac{3}{8}$  | 2        |
|      | HNTL-38-16     | Nylon Lock Nut, $\frac{3}{8}$ -16                              | 1        |
| 35   | 8820-8         | Machine Chain, 8-links   | 1        |
| 36   | 76-356         | Castor Mount Bracket   | 1        |
| 37   | 76-478         | Hydraulic Cylinder   | 1        |
| 38   | 14-531         | Seal Kit   | 1        |
| 39   | 75-787         | Reel Frame   | 1        |
| 40   | 18-188         | 45° Elbow  | 2        |
| NS   | 76-621         | Belt, 3V x 590   | 3        |

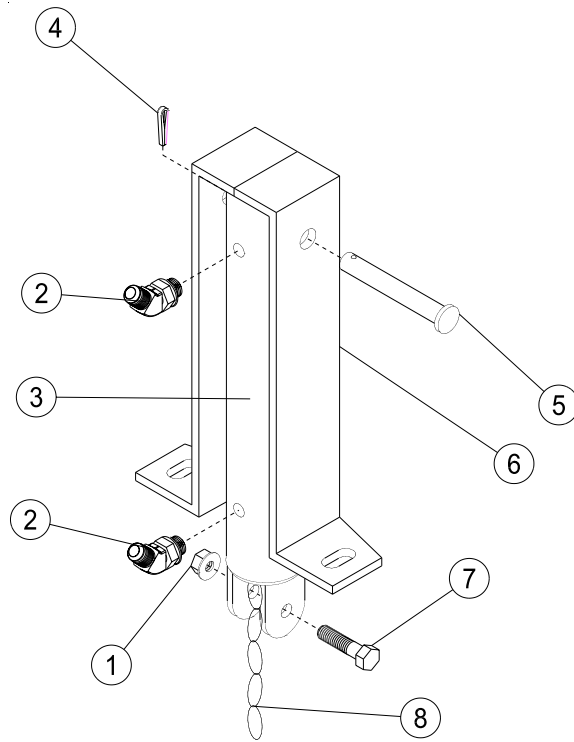
## REAR AXLE DRAWING

# **REAR AXLE PARTS LIST**

| REF# | PART#         | DESCRIPTION                                    | QUANTITY |
|------|---------------|--|----------|
| 1    | 60-106        | Park Brake Lever Kit                           | 1        |
| 2    | HB-516-18-275 | Hex Bolt, $\frac{5}{16}$ - 18 x $2\frac{3}{4}$ | 2        |
|      | HNTL-516-18   | Nylon Lock Nut, $\frac{5}{16}$ - 18            | 2        |
| 3    | 60-536        | Bellows  | 2        |
| 4    | 76-225        | Brake Cable with Nuts                          | 1        |
| 5    | 45-605        | Park Brake Bracket                             | 1        |
| 6    | HB-38-16-150  | Hex Bolt, $\frac{3}{8}$ - 16 x $1\frac{1}{2}$  | 6        |
|      | HW-38         | Flat Washer, $\frac{3}{8}$                     | 12       |
|      | HNTL-38-16    | Nylon Lock Nut, $\frac{3}{8}$ - 16             | 6        |
| 7    | 75-614        | Hose Clamp                                     | 1        |
| 8    | 13-099        | Hose Clamp                                     | 3        |
| 9    | 76-234        | Rear Chute Baffle                              | 1        |
|      | 8947-60       | Trim Seal x 60"                                | 1        |
| 10   | 76-218        | Brake Cable Bracket                            | 1        |
| 11   | 76-233        | Rear Beater Panel                              | 1        |
| 12   | 11-100        | Linkage Yoke, $\frac{5}{16}$                   | 1        |
| 13   | HCP-516-100   | Clevis Pin, $\frac{5}{16}$ x 1                 | 1        |
|      | HP-18-075     | Cotter Pin, $\frac{1}{8}$ x $\frac{3}{4}$      | 1        |
| 14   | 18-441        | Ball Joint                                     | 2        |
|      | HN-516-24     | Hex Nut, $\frac{5}{16}$ - 24                   | 4        |
| 15   | 76-634        | LH Brake Rod                                   | 1        |
|      | HP-18-075     | Cotter Pin, $\frac{1}{8}$ x $\frac{3}{4}$      | 1        |
| 16   | 76-595        | LH Brake Lever                                 | 1        |
| 17   | 34-122        | Short Elbow                                    | 4        |
| 18   | 76-541        | Hydraulic Tube Assembly                        | 1        |
| 19   | 34-057        | Tee Fitting                                    | 2        |
| 20   | 20-656        | Hydraulic Tube Assembly                        | 3        |
| 21   | 76-542        | LH Wheel Motor                                 | 1        |
|      | 45-065-01     | Studs  | 4        |
| 22   | 76-616        | Rear Axle                                      | 1        |
| 23   | HN-38-16      | Hex Nut, $\frac{3}{8}$ - 16                    | 4        |
| 24   | 75-723        | Rear Skid                                      | 2        |
| 25   | HHP-18        | Bridge Pin, $\frac{1}{8}$                      | 2        |
| 26   | 50-081        | Rubber Bumper                                  | 2        |
| 27   | HB-12-13-750  | Hex Bolt, $\frac{1}{2}$ - 13 x $7\frac{1}{2}$  | 8        |
|      | HMB-12-14     | Machine Bushing, $\frac{1}{2}$ x 14GA          | 8        |
|      | HNFL-12-13    | Flange Whiz-loc Nut, $\frac{1}{2}$ - 13        | 8        |
| 28   | HCP-12-225    | Clevis Pin, $\frac{1}{2}$ x $2\frac{1}{4}$     | 2        |
|      | HHP-18        | Bridge Pin, $\frac{1}{8}$                      | 2        |
| 29   | 76-543        | RH Wheel Motor                                 | 1        |
|      | 45-065-01     | Studs  | 4        |
| 30   | HNL-12-20     | Lug Nut, $\frac{1}{2}$ - 20                    | 10       |
| 31   | 76-756        | Rear Tire and Wheel                            | 2        |
|      | 16-225-01     | Tire, 24 x 13.00 x 12 4-ply                    | 2        |
|      | 76-756-02     | Rim  | 2        |
| 32   | 76-594        | RH Brake Lever                                 | 1        |
| 33   | HB-12-13-450  | Hex Bolt, $\frac{1}{2}$ - 13 x $4\frac{1}{2}$  | 4        |
|      | HW-12         | Flat Washer, $\frac{1}{2}$                     | 2        |
|      | HNTL-12-13    | Nylon Lock Nut, $\frac{1}{2}$ - 13             | 4        |
| 34   | 76-229        | Park Brake Relay                               | 1        |
| 35   | 76-635        | RH Brake Rod                                   | 1        |
|      | HP-18-075     | Cotter Pin, $\frac{1}{8}$ x $\frac{3}{4}$      | 1        |
| 36   | 76-639        | Axle Shim                                      | 2        |



## FINGER/BRUSH REEL DRAWING



# FINGER /BRUSH REEL PARTS LIST

| REF# | PART#         | DESCRIPTION                                    | QUANTITY |
|------|---------------|--|----------|
| 1    | HB-34-10-550  | Hex Bolt, $\frac{3}{4}$ - 10 x $5\frac{1}{2}$  | 2        |
|      | HNTL-34-10    | Nylon Lock Nut, $\frac{3}{4}$ - 10             | 2        |
| 2    | 33-435        | Tire and Wheel                                 | 2        |
|      | 33-435-02     | Wheel with Roller Bearing                      |          |
|      | 33-435-03     | Roller Bearing                                 |          |
|      | 33-435-04     | Bushing  |          |
| 3    | 48-046        | Castor Fork                                    | 2        |
|      | HMB-100-10    | Machine Bushing 1 x 10GA                       | 8        |
| 4    | 29-585        | Spacer Height Adjustment                       | 2        |
| 5    | 18-223        | Bushing (part of 76-355)                       | 2 per    |
| 6    | 76-355        | Arm  | 2        |
| 7    | 29-584        | Height Adjustment Spacer, $\frac{1}{2}$ "      | 2        |
| 8    | 20-019        | Bushing (part of 76-355)                       | 2 per    |
| 9    | 29-541        | Lock Pin, $\frac{1}{4}$                        | 2        |
| 10   | 76-356        | Castor Mount Bracket                           | 1        |
| 11   | 76-439        | Brush  | 1        |
| 12   | 76-438        | Brush Channel                                  | 1        |
| 13   | 75-799        | Side Plate RH.                                 | 1        |
| 14   | 76-336        | Hose Clamp                                     | 1        |
| 15   | 75-686        | Spacer, $1\frac{1}{4}$ ID x $1\frac{3}{8}$     | 1        |
| 16   | 75-506        | Sweeper Finger                                 | 116      |
| 17   | 75-780        | Reel Reel                                      | 1        |
| 18   | 76-330        | Reel Reel                                      | 4        |
| 19   | HB-516-18-125 | Hex Bolt, $\frac{5}{16}$ - 18 x $1\frac{1}{4}$ | 28       |
| 20   | HNTL-516-18   | Nylon Lock Nut, $\frac{5}{16}$ - 18            | 28       |
| 21   | 76-313        | Clamp  | 4        |
| 22   | HB-38-16-350  | Hex Bolt, $\frac{3}{8}$ - 16 x 3               | 2        |
|      | HW-38         | Flat Washer, $\frac{3}{8}$                     | 2        |
|      | HNTL-38-16    | Nylon Lock Nut, $\frac{3}{8}$ - 16             | 2        |
| 22   | HB-38-16-400  | Hex Bolt, $\frac{3}{8}$ - 16 x 4               | 1        |
|      | HW-38         | Flat Washer, $\frac{3}{8}$                     | 1        |
|      | HNTL-38-16    | Nylon Lock Nut, $\frac{3}{8}$ - 16             | 1        |
| 23   | HB-38-16-275  | Hex Bolt, $\frac{3}{8}$ - 16 x $2\frac{3}{4}$  | 3        |
|      | HW-38         | Flat Washer, $\frac{3}{8}$                     | 7        |
|      | HNTL-38-16    | Nylon Lock Nut, $\frac{3}{8}$ - 16             | 4        |
| 24   | 75-800        | Left Side Plate                                | 1        |
| 25   | 75-787        | Reel Frame                                     | 1        |
|      | 18-221        | Flange Bushing (part of 75-787)                | 4        |
| 26   | 75-511        | Pillow Block, $1\frac{1}{4}$ Bore              | 2        |
| 27   | 78-425        | Pulley, 3-Groove                               | 1        |
| 28   | 75-834        | Spacer, $1\frac{1}{4}$ ID x $1\frac{1}{8}$     | 1        |
| 29   | 76-210        | Matting $7\frac{1}{2}$ x 18                    | 2        |
| 30   | 76-213        | Reel Guard Strap                               | 2        |
| 31   | HB-516-18-100 | Hex Bolt, $\frac{5}{16}$ - 18 x 1              | 4        |
|      | HNTL-516-18   | Nylon Lock Nut, $\frac{5}{16}$ - 18            | 4        |
| 32   | HB-12-13-350  | Hex Bolt, $\frac{1}{2}$ - 13 x $3\frac{1}{2}$  | 4        |
|      | HMB-12-14     | Machine Bushing, $\frac{1}{2}$ - 14            | 4        |
|      | HNTL-12-13    | Nylon Lock Nut, $\frac{1}{2}$ - 13             | 4        |
| 33   | 75-808        | Front Baffle                                   | 1        |
| 34   | 76-574        | Hose Clamp Mount                               | 1        |
| 35   | HCP-12-250    | Clevis Pin, $\frac{1}{2}$ x $2\frac{1}{2}$     | 4        |
|      | 76-483        | Knock-Out Ring                                 | 4        |
| 36   | HB-38-16-300  | Hex Bolt, $\frac{3}{8}$ - 16 x 3               | 1        |
|      | HW-38         | Flat Washer, $\frac{3}{8}$                     | 2        |

Parts

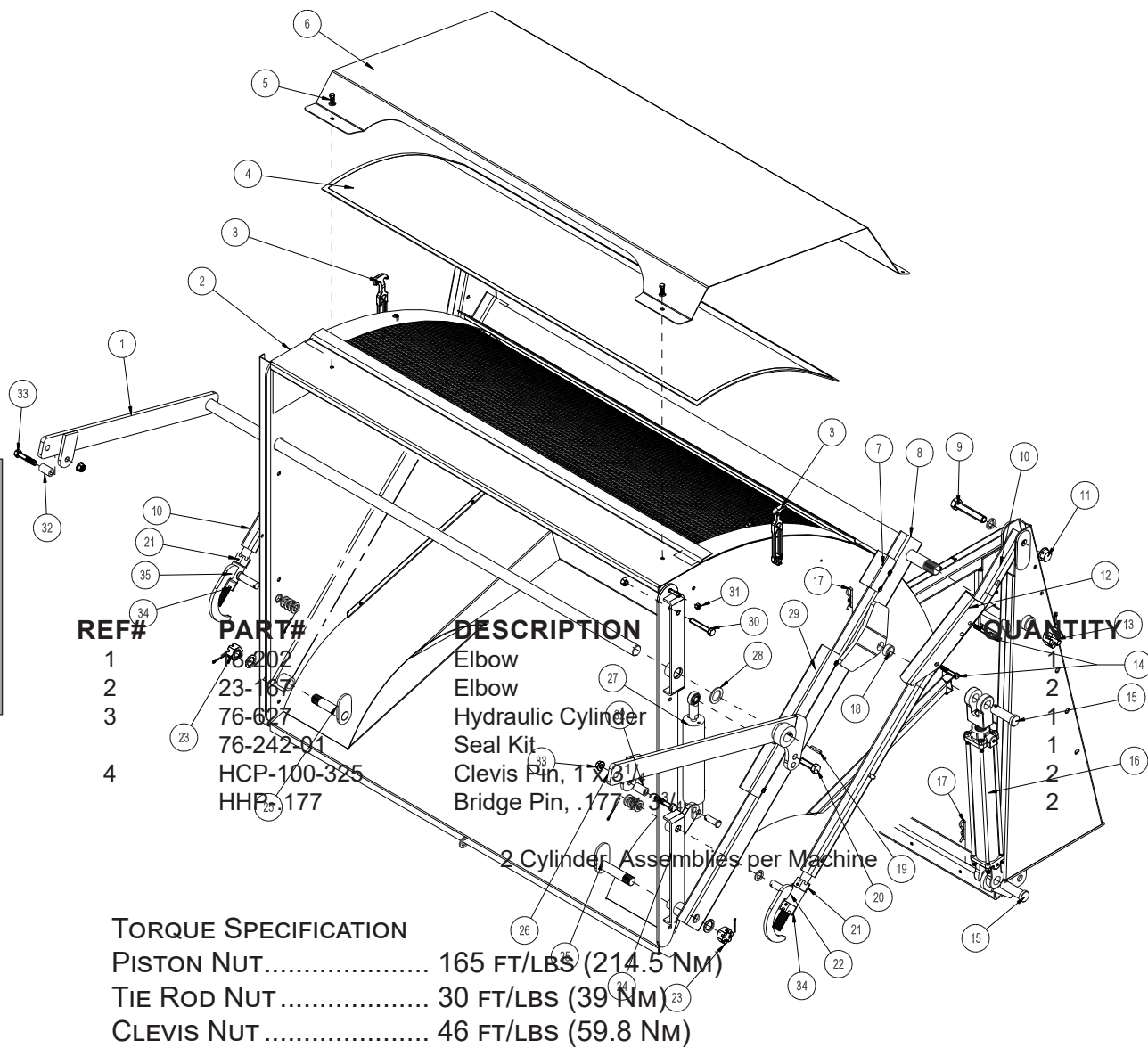
HNTL-38-16

Nylon Lock Nut,  $\frac{3}{8}$  - 16

1

Parts

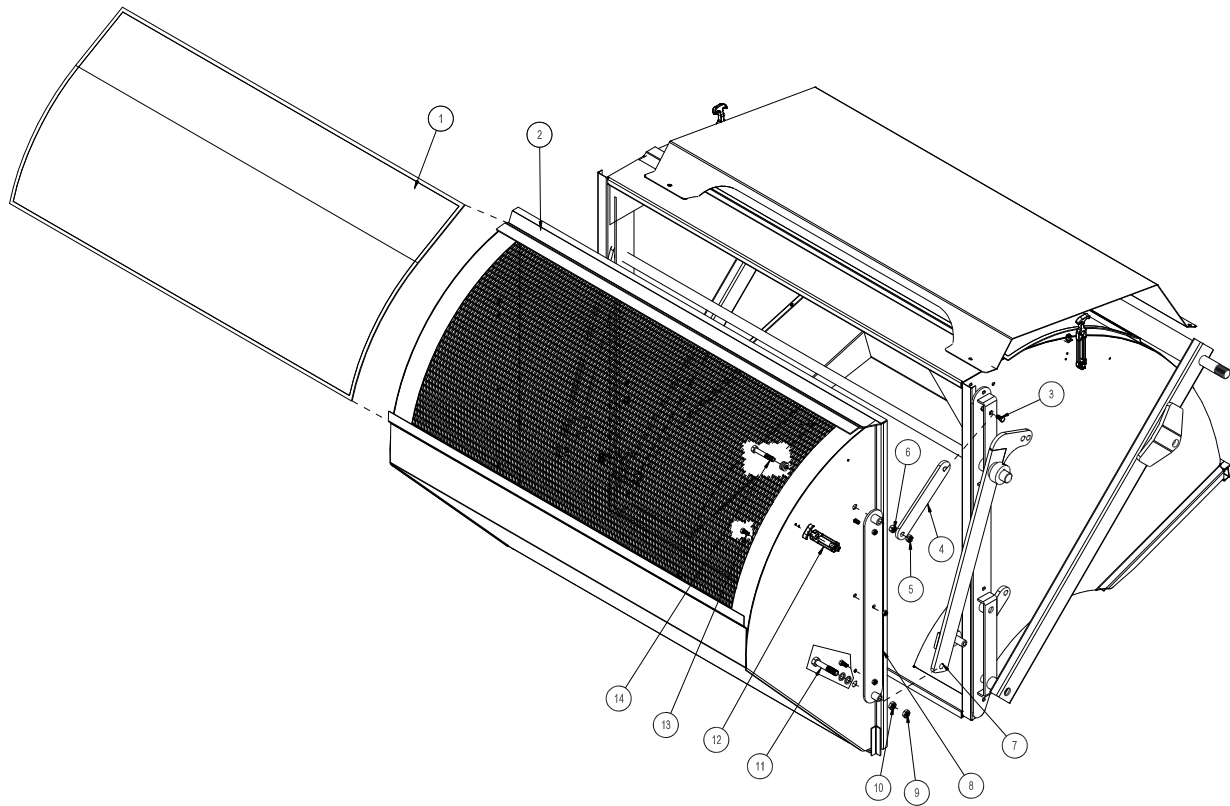
# HOPPER LIFT CYLINDER DRAWING





| REF# | PART#        | DESCRIPTION                                    | QUANTITY |
|------|--------------|--|----------|
| 1    | HNTL-38-16   | Nylon Lock Nut, $\frac{3}{8}$ - 16             | 2        |
| 2    | 18-188       | Elbow, $\frac{3}{8}$ SAE                       | 2        |
| 3    | 76-478       | Hydraulic Cylinder, 2 x 7 x $\frac{3}{4}$      | 1        |
|      | 14-531       | Seal Kit                                       |          |
| 4    | HP-18-100    | Cotter Pin, $\frac{1}{8}$ x 1                  | 1        |
| 5    | HCP-12-350   | Clevis Pin, $\frac{1}{2}$ - 3 $\frac{1}{2}$    | 1        |
| 6    | 75-827       | Cylinder Bracket                               | 1        |
| 7    | HB-38-16-150 | Hex Bolt, $\frac{3}{8}$ - 16 x 1 $\frac{1}{2}$ | 1        |
| 8    | 8820-8       | Machine Chain St. Link                         | 1        |

# HOPPER DRAWING



Parts

# HOPPER PARTS LIST

| REF#                            | PART#         | DESCRIPTION   | QUANTITY |
|---------------------------------|---------------|---|----------|
| 1                               | 76-576-04     | Left Tailgate Dump Bar  | 1        |
| 2                               | 76-237        | Hopper  | 1        |
| 3**                             | 15-437        | Latch   | 2        |
| 4**                             | HRS-316-1125  | Rivet, $\frac{3}{16} \times 1\frac{1}{8}$                         | 4        |
| 5                               | HW-316        | Rivet Washer, $\frac{3}{16}$                                      | 4        |
| 6                               | HW-316        | Washer, $\frac{3}{16}$  | 2        |
| 7                               | 76-261        | Hopper Screen   | 1        |
| 8**                             | HB-516-18-075 | Hex Bolt, $\frac{5}{16} - 18 \times \frac{3}{4}$                  | 6        |
| 9                               | HW-516        | Flat Washer, $\frac{5}{16}$                                       | 6        |
| 10†                             | HNTL-516-18   | Nylon Lock Nut, $\frac{5}{16} - 18$                               | 6        |
| 16                              | 76-359        | Hopper Screen Cover   | 1        |
| 12                              | 76-161        | Short Metal Hose Guard  | 1        |
| 18                              | 76-211        | Arm Pivot Tube  | 1        |
| 19                              | HB-34-10-400  | Hex Bolt, $\frac{3}{4} - 10 \times 4$                             | 2        |
| 15                              | HMB-34-10     | Machine Bushing, $\frac{3}{4} - 10GA$                             | 2        |
| 10†                             | 76-230        | Hopper Dump Arm   | 2        |
| 17                              | HNTL-34-10    | Nylon Lock Nut, $\frac{3}{4} - 10$                                | 2        |
| 18**                            | 75-653        | Hopper Safety Lift  | 2        |
| 19**                            | HNA-114-12    | Axle Nut, $1\frac{1}{4} - 12$                                     | 2        |
| 20                              | HP-316-100    | Cotter Pin, $\frac{3}{16} \times 19$                              | 2        |
| 24                              | HB-38-16-225  | Hex Bolt, $\frac{3}{8} - 16 \times 2\frac{1}{4}$                  | 4        |
|                                 | HNW-38-16     | Wing Nut, $\frac{3}{8} - 16$                                      | 4        |
| 13                              | HCP-100-325   | Clevis Pin, $1 \times 3\frac{1}{4}$                               | 4        |
| 14                              | 76-627        | Hydraulic Cylinder  | 2        |
| 17                              | HHP-177       | Bridge Pin, $.177 \times 3\frac{3}{4}$                            | 2        |
| 18*                             | 76-288        | Spacer  | 2        |
| 19                              | UKSO-14-150   | Machine Key, $\frac{1}{4} \times \frac{1}{4} \times 1\frac{1}{2}$ | 1        |
| 10                              | HS-516-18-038 | Set Screw, $\frac{5}{16} - 18 \times \frac{3}{8}$                 | 1        |
| Inlet Relief Valve Setting      | HRP-38-250    | Roll Pin, $\frac{3}{8} \times \frac{1}{2}$                        | 1        |
| Nominal Flow                    | HB-58-11-200  | Hex Bolt, $\frac{5}{8} - 11 \times 2$                             | 1        |
| Displacement                    | HMB-58-14     | Machine Bushing, $\frac{5}{8} \times 14GA$                        | 3        |
| Check Valve for Manual Steering | HNCL-58-11    | Center Nylon Lock Nut, $\frac{5}{8} - 11$                         | 1        |
| Inlet Pressure Rating           | HNA-100-14    | Slotted Hex Nut, $1 - 14$   | 2        |
| Return Pressure Rating          | 48-148        | Right Adjustment Sleeve   | 1        |
| Fluid                           | HMB-34-14     | Machine Bushing, $\frac{3}{4} \times 14GA$                        | 1        |
| Ports                           | HMB-34-10     | Machine Bushing, $\frac{3}{4} \times 10GA$                        | 4        |
|                                 | HP-18-150     | Cotter Pin, $\frac{1}{8} \times 1\frac{1}{2}$                     | 1        |
| 23                              | HMB-100-14    | Machine Bushing, $1 \times 14GA$                                  | 2        |
|                                 | HNA-100-14    | Slotted Hex Nut, $1 - 14$   | 2        |
|                                 | HP-18-150     | Cotter Pin, $\frac{1}{8} \times 1\frac{1}{2}$                     | 2        |
| 24                              | 76-215        | Right Hinge Strap (Shown)   | 1        |
|                                 | 76-216        | Left Hinge Strap  | 1        |
| 25                              | 75-569        | Swivel Pin  | 2        |
| 26                              | 76-413        | Right Tailgate Dump Bar   | 1        |

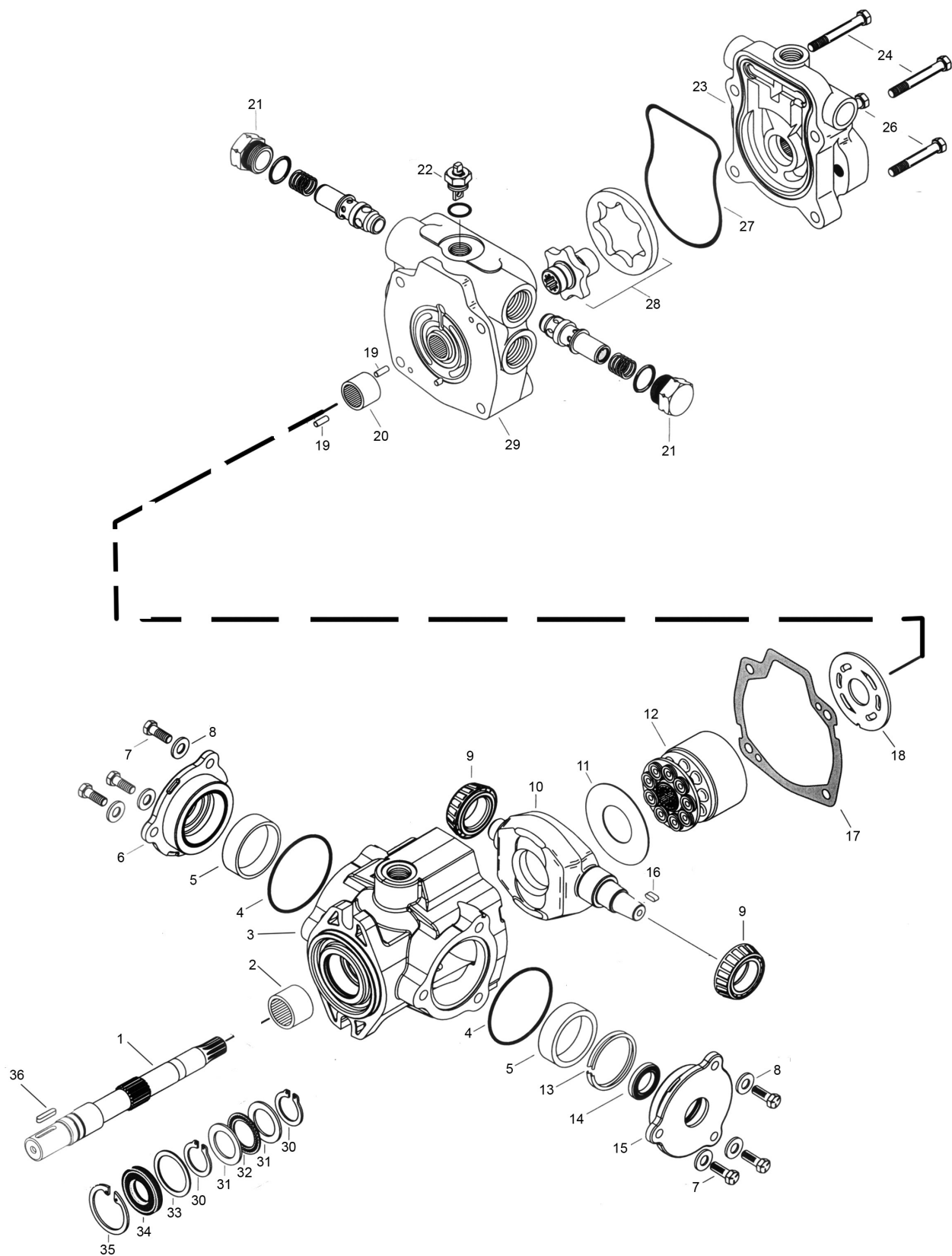
## 76-559 ORBITROL SPECIFICATIONS

Inlet Relief Valve Setting: 1020 psi (70 bar)  
 Nominal Flow: 3 gpm (11 lpm)  
 Displacement: 6.10 cu. in. R (100 cu cm/R)  
 Check Valve for Manual Steering: Yes  
 Inlet Pressure Rating: 2030 psi (140 bar)  
 Return Pressure Rating: 145 psi (10 bar) Maximum  
 Fluid: SAE 10W-40 API Service SJ or higher Motor Oil  
 Ports: 4 SAE O-Ring 4 Ports

\*Spacer **MUST** be to the outside of the tab on the Pivot Arm with the tab and the spacer inside the cylinder yoke.

(Continued on next page)

# HOPPER DRAWING



Parts

## HOPPER PARTS LIST

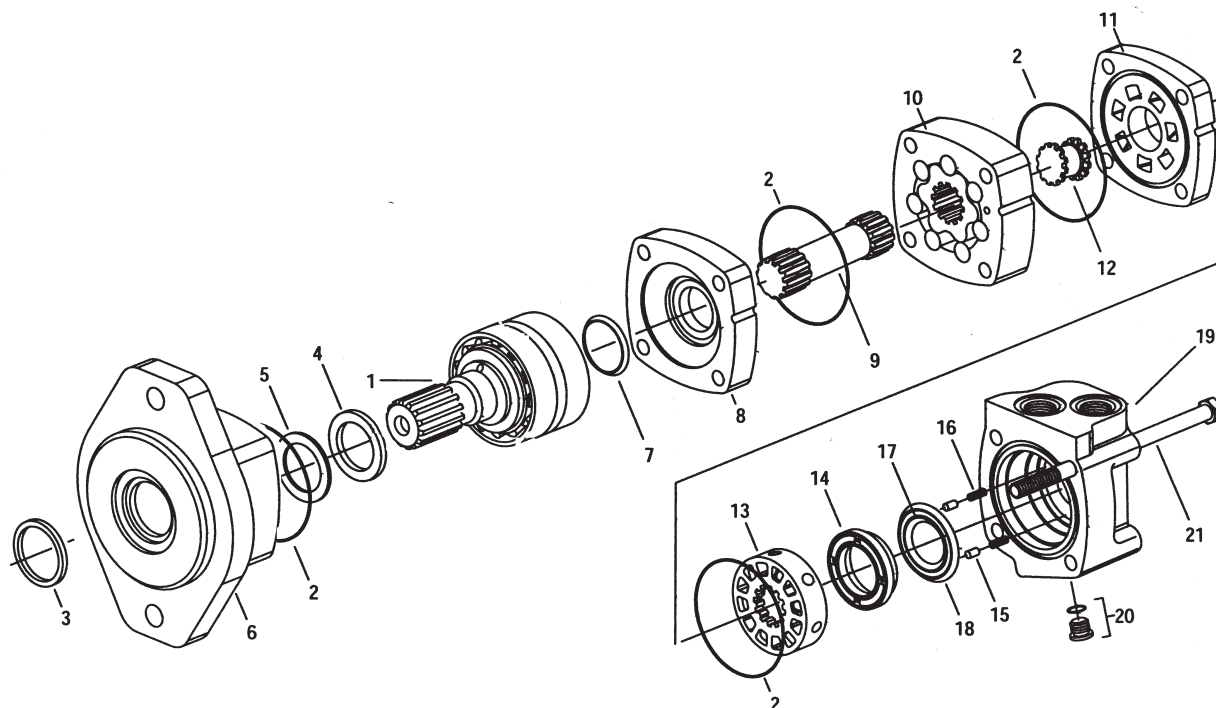
| REF# | PART#             | DESCRIPTION                                 | QUANTITY   |
|------|-------------------|---|------------|
| 27   | 76-822            | Tailgate Screen Cover                       | 1          |
| 2    | 76-628            | Top Filter Cover                            | 2          |
| 3    | 76-624            | Hog Hair Filter (20 x 58)                   | 2          |
| 4    | 76-268-28-180     | Hopper Screen Cover (1800 (part of rod end) | 1          |
| 5    | 76-268-175        | Hopper Screen (Remove)                      | 1          |
| 6    | 76-268            | Tailgate Screen (Remove)                    | 1          |
| 28*  | HMB-37-10210      | Machine Bushing, 1 1/4 x 10 GA              | 2 As Req'd |
| 29   | 76-1590-32-100    | Hex Bolt, #10-32 x 1                        | 8          |
| 30   | HNFL-10-320       | Flange W/ 1/2 - 10 Nut, #10 - 32            | 8          |
| 8    | HN-38-16-125      | Hex Nut, 3/8 - 16 x 1 1/4                   | 2          |
|      | HNCL-12-13        | Center Nylon Lock Nut, 1/2 - 13             | 2          |
| 31   | HNCL-38-16        | Center Nylon Lock Nut, 3/8 - 16             | 8          |
| 9*   | HMB-48-16-100     | Hex Bolt, 3/8 - 16 x 1                      | 8          |
| 32   | 76-17020-32-100   | Hex Bolt, #10 - 32 x 1                      | 2          |
| 33   | HNFL-10-3250      | Flange W/ 1/2 - 10 Nut, #10 - 32            | 2          |
|      | HNCL-12-13        | Center Nylon Lock Nut, 1/2 - 13             | 2          |
| 34   | 75-704            | Rubber Latch and Keeper                     | 2          |
| NS   | 8980-60-38-16-038 | Trim Edge, 3/8 - 16 x 3/8                   | 2          |
| 35   | 48-153            | Left Adjustment Sleeve                      | 1          |
|      | HMB-34-14         | Machine Bushing, 3/4 x 14GA                 | 1          |
|      | HMB-34-10         | Machine Bushing, 3/4 x 10GA                 | 1          |

## INSTALLATION INSTRUCTIONS

1. Release rubber latches (Ref B) holding tailgate screen in place.
2. Remove tailgate screen (Ref 6) from tailgate. Unwedge the top and lift out of the bottom tab.
3. Install latches (Ref 7) to both sides of the tailgate screen cover and keeper (Ref 9) to tailgate sides using #10-32 Hex Bolts and nuts on the bracket end.
4. First, place the hog hair blue filter (Ref 3) onto the tailgate screen, then place tailgate screen cover (Ref 1) over the top of the hog hair filter by placing the screen into the bottom tab and wedging it against the top of the tailgate. Then hook latches to keepers to hold in place.
5. Remove Hex Bolts (Ref A) holding the hopper screen cover (Ref 4) to hopper.
6. Remove the hopper screen (Ref 5) from the hopper by unwedging the top and pulling it out the bottom tab.
7. Place top filter cover (Ref 2) over the hopper screen opening. Secure with 3/8 - 16 Hex Bolts, nuts and locknuts (Ref 8). Tighten locknut so top filter cover can still hinge on the Hex Bolts.
8. Install latches (Ref 7) onto the filter cover (Ref 2) and the keepers (Ref 9) to the sides of the hopper using the 10-32 Hex Bolts and nuts.
9. Install the 8980-60 trim edge onto the top of the hopper screen opening.
10. Place the hog hair filter (Ref 5) onto the hopper screen. Lower top filter cover and hook latches to the keepers.

# TAILGATE DRAWING

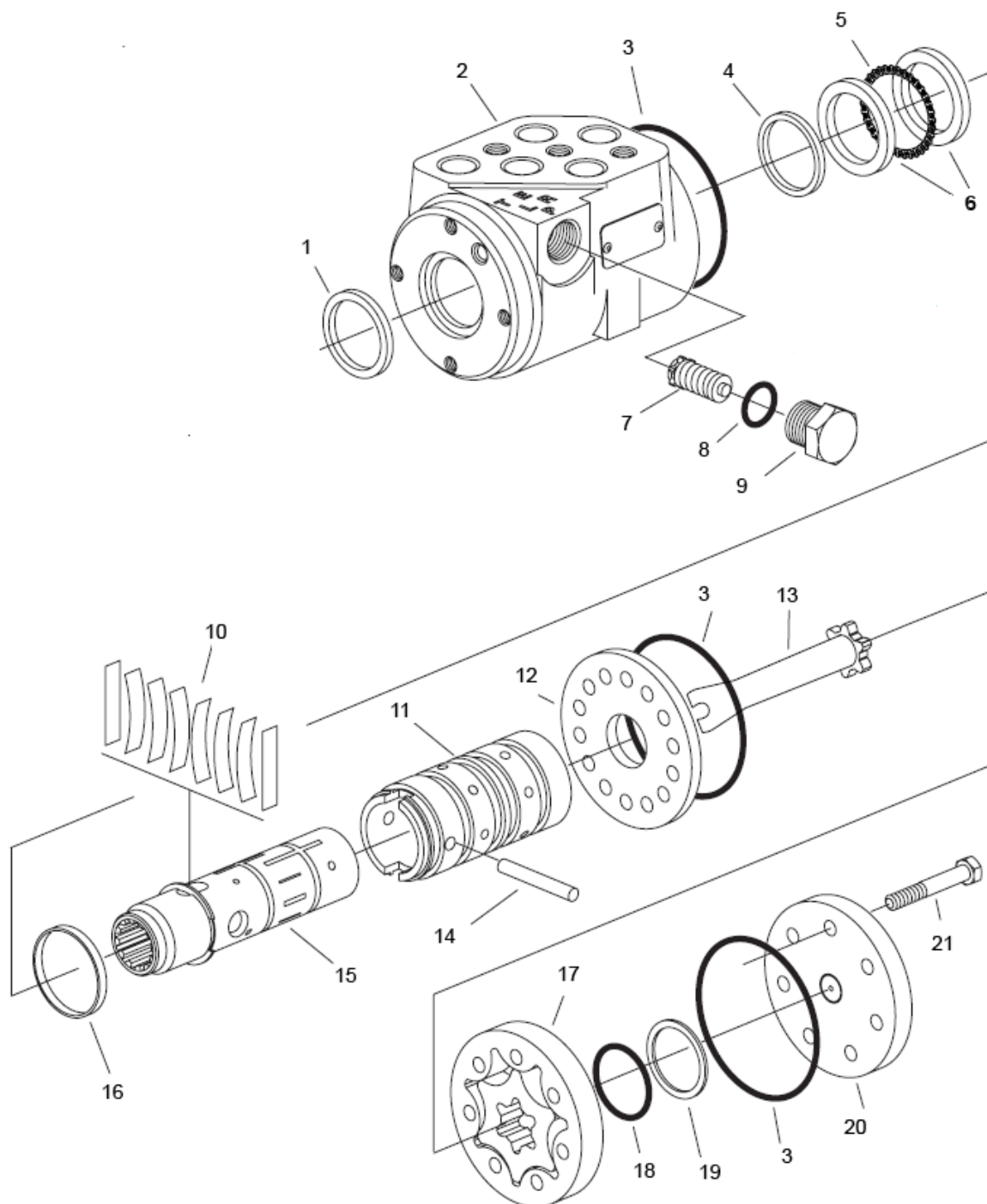
Service



| REF# | PART#        | DESCRIPTION                     | QUANTITY |
|------|--------------|---------------------------------|----------|
| 1    | 76-262       | Tailgate Screen                 | 1        |
| 2    | 76-243       | Tailgate                        | 1        |
| 3    | HB-12-13-300 | Hex Bolt, 1/2 - 13 x 3          | 2        |
|      | HN-12-13     | Hex Nut, 1/2 - 13               | 2        |
|      | HNCL-12-13   | Center Nylon Lock Nut, 1/2 - 13 | 2        |
| 4    | 75-564       | Tailgate Hinge                  | 2        |
| 5    | HNCL-12-13   | Center Nylon Lock Nut, 1/2 - 13 | 2        |
| 6    | HN-12-13     | Hex Nut, 1/2 - 13               | 2        |
| 7    | 76-413       | Right Tailgate Dump Bar         | 1        |
| 8    | 75-565       | Tailgate Hinge Strap            | 2        |
| 9    | HNCL-58-11   | Center Nylon Lock Nut, 5/8 - 11 | 2        |
| 10   | HNJ-58-18    | Jam Nut, 5/8 - 18               | 2        |
| 11   | HB-58-18-325 | Hex Bolt, 5/8 - 18 x 3 1/4      | 2        |
|      | HMB-58-14    | Machine Bushing, 5/8 x 14GA     | 10       |
| 12   | 15-437       | Latch                           | 2        |
|      | HRS-316-1125 | Rivet, 3/16 x 1 1/8             | 2        |
|      | HRS-316-100  | Rivet, 3/16 x 1                 | 4        |
|      | HRW-316      | Rivet Washer, 3/16              | 4        |
|      | HW-316       | Flat Washer, 3/16               | 2        |
| 13   | HNCL-38-16   | Center Nylon Lock Nut, 3/8 - 16 | 6        |
|      | HB-38-16-100 | Hex Bolt, 3/8 - 16 x 1          | 6        |
| 14   | HB-12-13-300 | Hex Bolt, 1/2 - 13 x 3          | 2        |
|      | HMB-12-14    | Machine Bushing, 1/2 x 14GA     | 6        |

| REF# | PART#        | DESCRIPTION                                | QUANTITY |
|------|--------------|--|----------|
| 1    | HB-58-11-200 | Hex Bolt, $\frac{5}{8}$ - 11 x 2           | 1        |
| 2    | HMB-58-14    | Machine Bushing, $\frac{5}{8}$ - 14GA      | 1        |
| 3    | HNTL-58-11   | Nylon Lock Nut, $\frac{5}{8}$ - 11GA       | 1        |
| 4    | 18-154       | Rod End                                    | 1        |
|      | HG-14-28-180 | Grease Fitting, $\frac{1}{4}$ - 28 x 180°  | 1        |
| 5    | 18-168       | Elbow                                      | 2        |
| 6    | HHP-18       | Bridge Pin, $\frac{1}{8}$                  | 1        |
| 7    | HCP-58-175   | Clevis Pin, $\frac{5}{8}$ x $1\frac{3}{4}$ | 1        |
| 8    | 15-839       | Hydraulic Cylinder                         | 1        |
|      | 15-839-01    | Seal Kit                                   | 1        |
| 9    | HNJ-58-18    | Jam Nut, $\frac{5}{8}$ -18                 | 1        |

# 76-638 HYDROSTATIC PUMP DRAWING





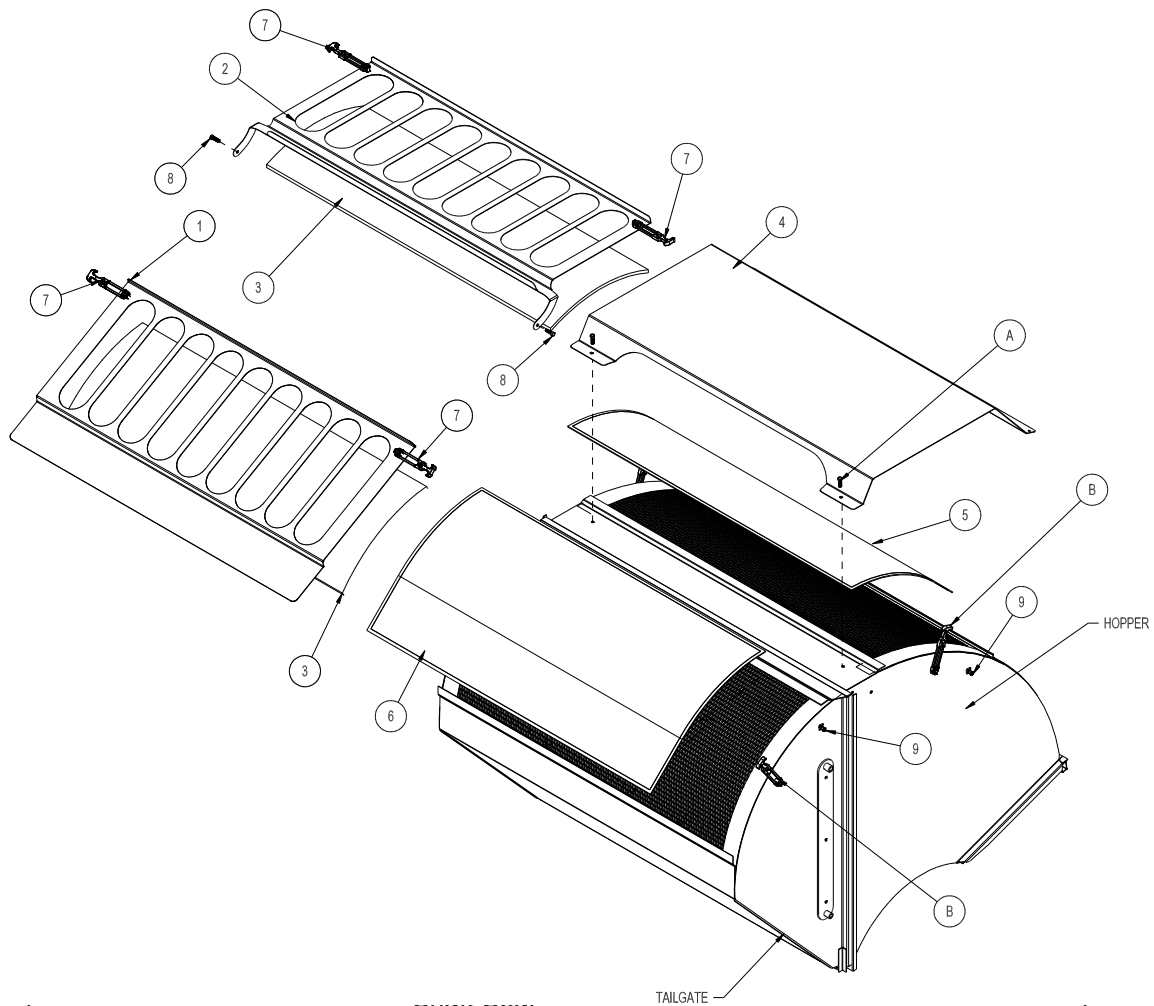
## 76-638 HYDROSTATIC PUMP PARTS LIST

| REF# | PART#     | DESCRIPTION                   | QUANTITY |
|------|-----------|-------------------------------|----------|
| 1    | 76-398-01 | Drive Shaft (splined)         | 1        |
| 2    |           | 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   |           | Key                           | 1        |
| 17*  | 77-239-13 | Gasket                        | 1        |
| 18   | 76-482-01 | Back Plate                    | 1        |
| 19   |           | Dowel Pin                     | 2        |
| 20   |           | Bearing                       | 1        |
| 21   | 77-239-15 | Relief Valve                  | 2        |
| 22   | 77-239-16 | Tow Valve Assembly            | 1        |
| 23   |           | 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   |           | 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        |
| 36   | 60-343-49 | Key                           | 1        |

\* 77-239-23 Seal Repair Kit

# 76-539 MOTOR DRAWING

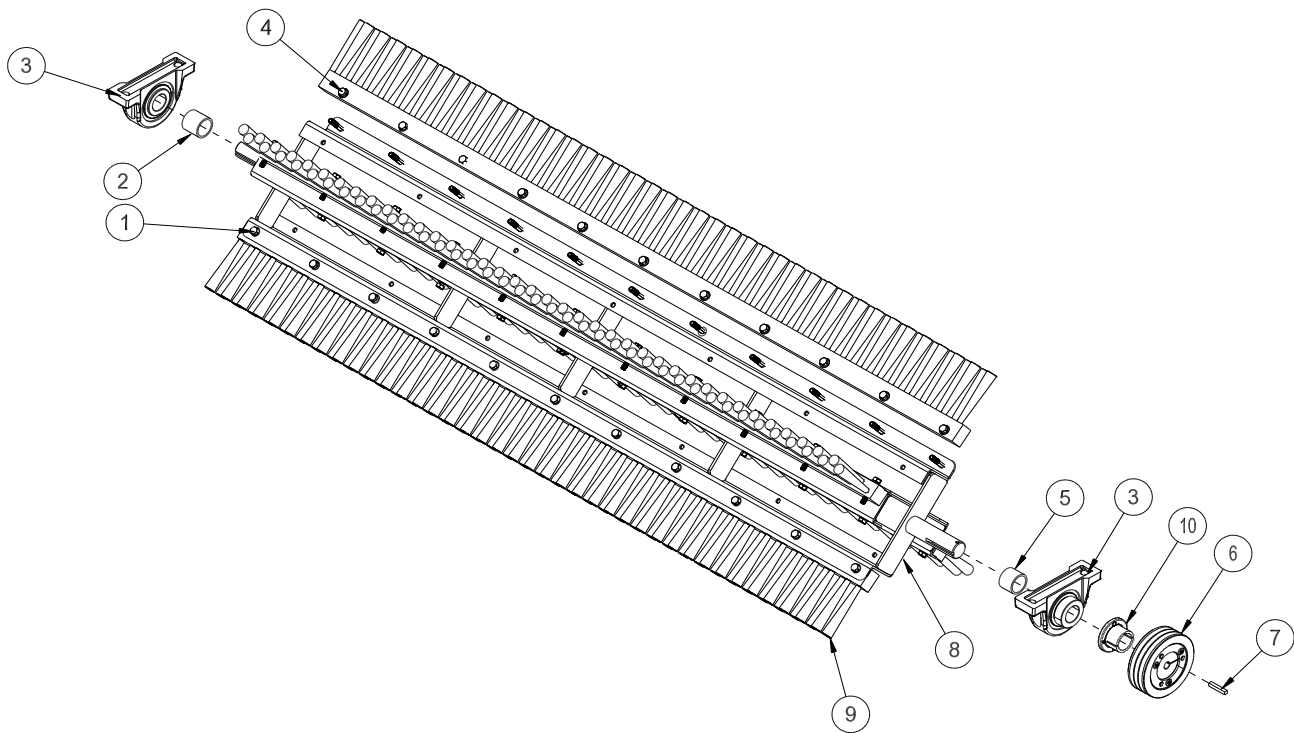
Service



|     |           | Part Name             | Qty |
|-----|-----------|-----------------------|-----|
| 5*  |           | Back-up Ring          | 1   |
| 6   | 76-539-02 | Bearing Housing SAE A | 1   |
| 7*  |           | Shaft Face Seal       | 1   |
| 8   | 30-101-03 | Wear Plate            | 1   |
| 9   | 76-539-03 | Main Drive            | 1   |
| 10  | 76-539-04 | Geroler               | 1   |
| 11  | 30-101-06 | Valve Plate           | 1   |
| 12  | 14-207    | Valve Drive           | 1   |
| 13  | 14-208    | Valve                 | 1   |
| 14  | 30-101-07 | Balance Ring          | 1   |
| 15  | 14-210    | Balance Ring Pin      | 2   |
| 16  | 14-209    | Compression Spring    | 2   |
| 17* |           | Inner Face Seal       | 1   |
| 18* |           | Outer Face Seal       | 1   |
| 19  | 30-101-08 | Valve Housing         | 1   |
| 20  | 30-101-09 | Plug Assembly         | 1   |
| *   |           | O-ring                | 1   |
| 21  | 76-539-05 | Cap Screw             | 4   |
| *   | 30-101-11 | Seal Kit              | 1   |



## 76-754 FRENCH BRUSH REEL KIT

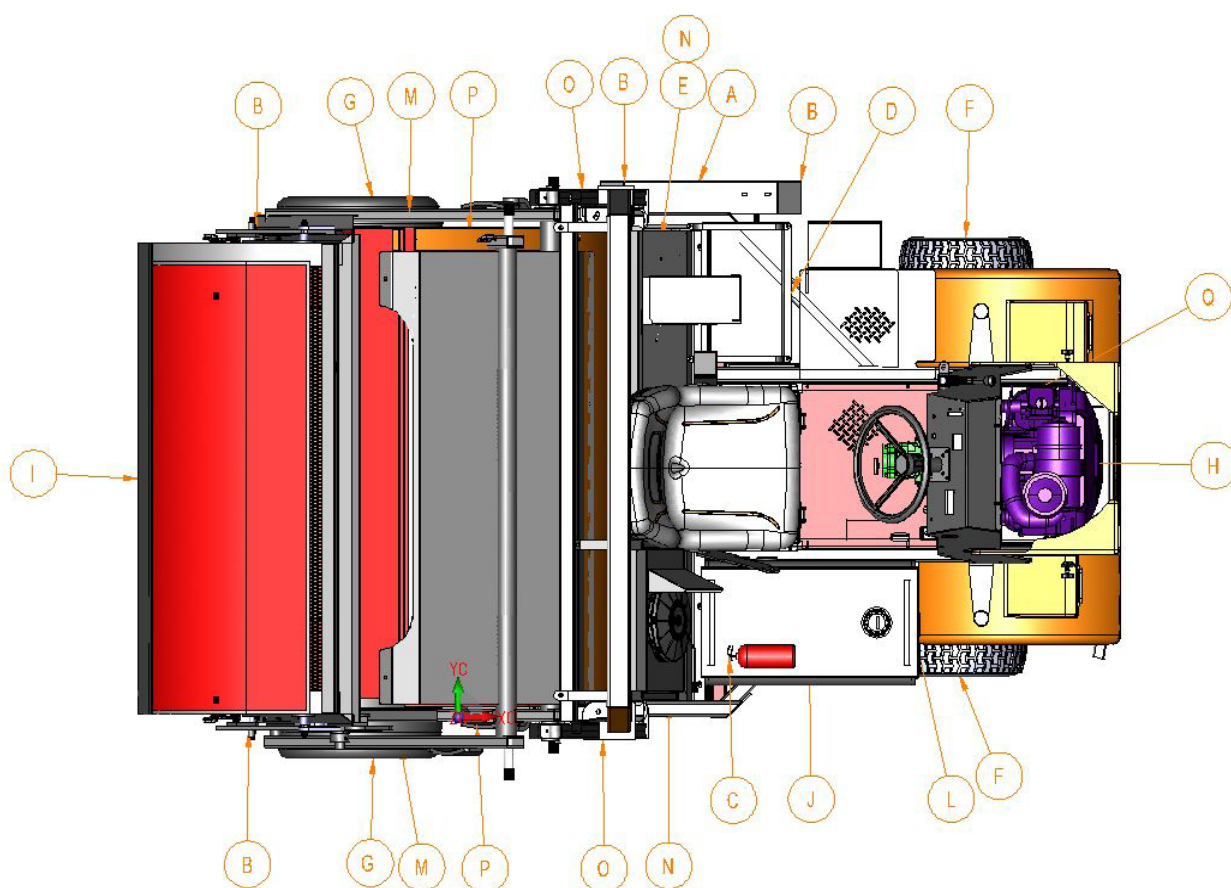


| REF | PART#         | DESCRIPTION                                    | QUANTITY |
|-----|---------------|--|----------|
| 1   | HB-516-18-175 | Hex Bolt, $\frac{5}{16}$ - 18 x $1\frac{3}{4}$ | 44       |
|     | HW-14         | Flat Washer, $\frac{1}{4}$                     | 44       |
| 2   | 75-686        | Spacer   | 1        |
| 3   | 75-511        | Pillow Block                                   | 2        |
| 4   | HNTL-516-18   | Nylon Lock Nut, $\frac{5}{16}$ - 18            | 44       |
| 5   | 75-834        | Spacer   | 1        |
| 6   | 78-425        | Pulley   | 1        |
| 7   | HKSQ-14-150   | Square Key, $\frac{1}{4}$ x $1\frac{1}{2}$     | 1        |
| 8   | 76-456        | Brush Reel Frame                               | 1        |
| 9   | 76-455        | Brush  | 4        |
| 10  | 78-431        | Hub  | 1        |

## DECAL LIST

This is a list of decals located on the Sweep Star 60. Part number, description and location will help in reordering decals.

|   |                                    |   |
|---|------------------------------------|---|
| A | 25-279 Decal, Safety Warning       | Belt Guard                                |
| B | 25-286 Decal, Pinch Point          | Front & Back Belt Guard/R&L Hopper Bottom |
| C | 25-298 Decal, Warning Hot          | Fan Mount                                 |
| D | 25-307 Decal, Refuel w/ Gasoline   | Manifold Mount (above gas tank)           |
| E | 25-320 Decal, Warning Load Limit   | Left Front Hopper                         |
| F | 25-355 Decal, Tire Pressure 18 PSI | Front Tires                               |
| G | 25-355 Decal, Tire Pressure 18 PSI | Rear Tires                                |
| H | 25-358 Decal, Smithco 12"          | Front Dash Console                        |
| I | 25-359 Decal, Smithco 17"          | Rear Hopper                               |
| J | 25-362 Decal, Fire Danger          | Oil Tank Cover                            |
| L | 25-373 Decal, 7" Smithco Star      | Front Oil Tank                            |
| M | 75-651 Decal, Hopper Lift Safety   | Hopper Lift Safety Bar                    |
| N | 76-304 Decal, Crush/Pinch          | R&L Front Hopper                          |
| O | 76-307 Decal, Tower Warning        | R&L Hopper Tower                          |
| P | 76-417 Decal, Sweep Star 60        | R&L Hopper Side                           |
| Q | 76-536 Decal, Control Panel        | Dash Panel                                |



## QUICK REFERENCE REPLACEMENT PARTS

### REPLACEMENT FILTERS

|           |                              |                 |
|-----------|------------------------------|-----------------|
| 60-334    | Hydraulic Oil Filter Element |                 |
| 13-531    | Engine Oil filter            | Briggs # 842921 |
| 76-395-01 | Air Cleaner Cartridge        | Briggs # 841497 |
| 76-395-02 | Safety Filter Cartridge      | Briggs # 821136 |
| 50-403    | Fuel Filter                  |                 |

### REPLACEMENT BELTS

|        |                |      |
|--------|----------------|------|
| 76-621 | Belt, 3V x 590 | 3per |
|--------|----------------|------|

### SEAL KITS

|           |  |  |
|-----------|--|--|
| 76-559    | Orbitrol                                 |  |
| 15-301-01 | Seal Kit                                 |  |
| 76-638    | Hydrostatic Pump                         |  |
| 77-239-23 | Seal Kit                                 |  |
| 76-539    | Reel Motor                               |  |
| 30-101-11 | Seal Kit                                 |  |
| 76-540    | Gear Pump                                |  |
| 76-540-01 | Seal Kit                                 |  |
| 76-543    | RH Wheel Motor                           |  |
| 14-080    | Seal Kit                                 |  |
| 43-241-01 | Replacement Brake                        |  |
| 76-542    | LH Wheel Motor                           |  |
| 14-080    | Seal Kit                                 |  |
| 43-241-01 | Replacement Brake                        |  |
| 76-627    | Hydraulic Cylinder (Hopper)              |  |
| 76-242-01 | Seal Kit                                 |  |
| 15-839    | Hydraulic Cylinder (Tailgate & Steering) |  |
| 15-839-01 | Seal Kit                                 |  |
| 76-478    | Hydraulic Cylinder (Reel)                |  |
| 14-531    | Seal Kit                                 |  |

### FLUIDS

|                 |                     |
|-----------------|---------------------|
| Engine Oil      | SJ or Higher 10W-30 |
| Hydraulic Fluid | SJ or Higher 10W-40 |

### OTHER PARTS

|        |  |
|--------|--|
| 13-488 | Key Switch                                 |
| 76-354 | 2 1/2 # ABC Dry Chemical Fire Extinguisher |

# The Smithco Commercial Products Two-Year Limited Warranty

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

## Warranty Duration is:

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

## Owner Responsibilities:

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

## Instructions for Obtaining Warranty Service:

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

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

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

## Maintenance Parts:

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

## Items/Conditions Not Covered:

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



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



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



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



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



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



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



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



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

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

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

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

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

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

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

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

