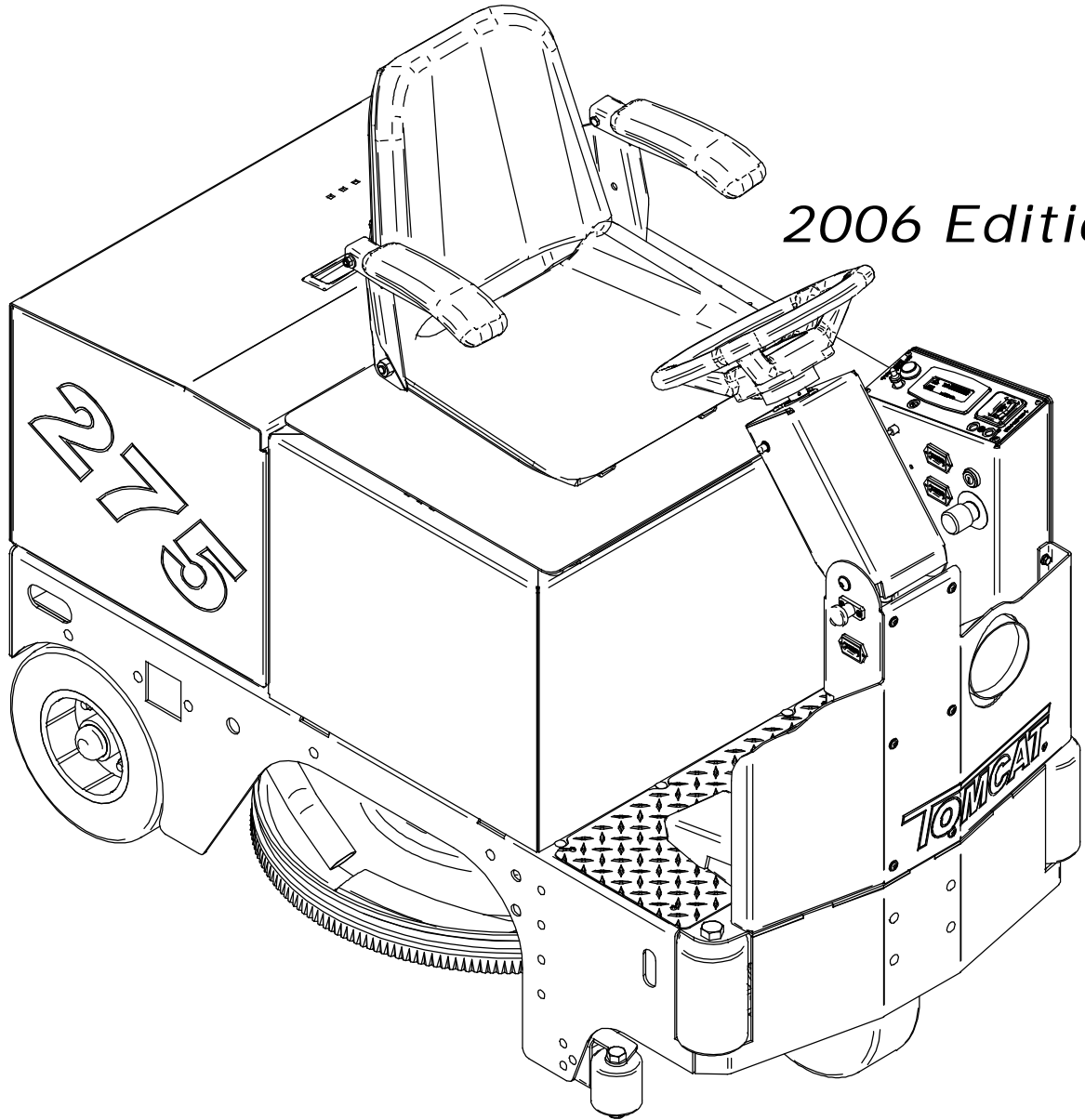


# 275 Burnisher

# Model 275

## *Operator and Parts Manual 275 Rider Burnisher*



2006 Edition: 1

R.P.S. Corporation  
P.O. Box 241  
Racine, Wisconsin 53401

Phone: 1-800-450-9824  
Fax: 1-866-632-6961

# How to use this manual

This manual contains the following sections:

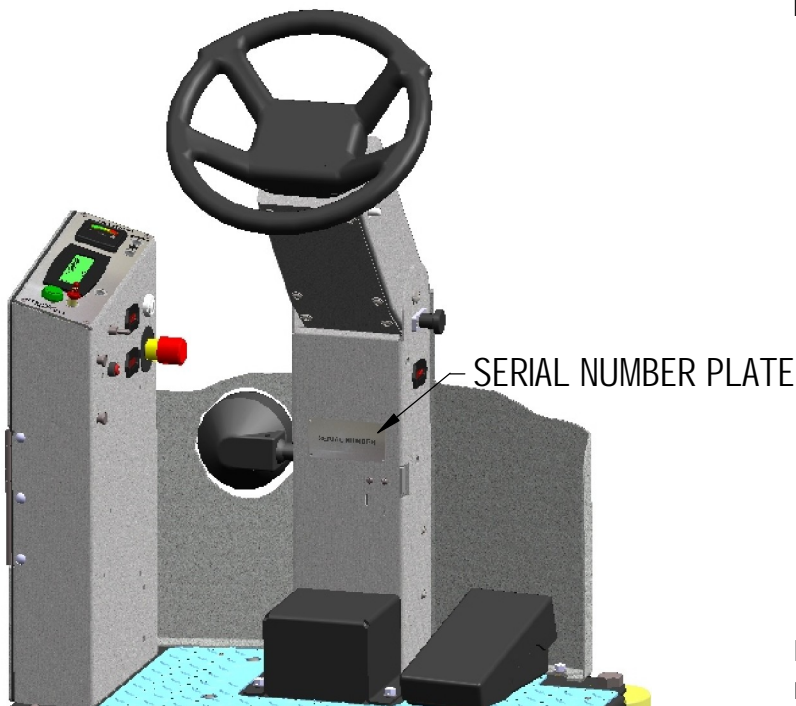
- *HOW TO USE THIS MANUAL*
- *SAFETY*
- *OPERATIONS*
- *MAINTENANCE*
- *PARTS LIST*

The *HOW TO USE THIS MANUAL* section will tell you how to find important information for ordering the correct replacement parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and serial number are important.

Refer to *MACHINE INFORMATION* on page one of this manual, which is filled out during the installation of your machine.

The serial number of your machine is located on the lower half of steering tower of the machine. (See Picture Below)



The *SAFETY* section contains important information regarding hazard or unsafe practices of the machine.

Levels of hazards are identified that could result in product or personal injury, or severe injury resulting in death.

The *OPERATIONS* section is to familiarize the operator with the operation and function of the machine.

The *MAINTENANCE* section contains preventative maintenance information to keep the machine and its components in good working condition. They are listed in this general order:

- Batteries
- Burnising Pads
- Cleaning Filter
- Service Schedule
- Machine Trouble shooting

The *PARTS LIST* section contains assembled parts illustrations and corresponding parts list. The parts lists include the following columns of information:

- *ITEM* - Refers to the reference number on the parts illustration.
- *PART NO.* - Lists the part number for the part.
- *QTY* - Lists the quantity of the part used in that area of the machine.
- *DESCRIPTION* - Is a brief description of the part.
- *COMMENTS* - For information not noted by the other columns.

**NOTE:** If a service or option kit is installed on your machine, be sure to keep the *KIT INSTRUCTIONS* which came with the kit. It contains replacement part numbers needed for ordering future parts.

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Troubleshooting	Page 20-21		
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## Machine information

Please fill this area out at the time of installation for future reference.

Model number \_\_\_\_\_

Serial number: \_\_\_\_\_

Installation date: \_\_\_\_\_

Installing dealer: \_\_\_\_\_

Dealer contact: \_\_\_\_\_

Address: \_\_\_\_\_

City, state, zip: \_\_\_\_\_

Phone number: \_\_\_\_\_

This operator and parts manual should be considered a permanent part of the unit and should remain with the unit at all times. This operator and parts manual covers all the tomcat 275 Series burnishers. You may find descriptions and features that are not on your particular model. The information and specification included in this publication were in effect at the time of printing. R.P.S. Corporation reserves the right to make changes without notice incurring any obligation.

*To register for warranty, fax your warranty registration form today!*

R.P.S. CORPORATION  
P.O. BOX 241  
RACINE, WI 53401  
PHONE: 800-450-9824  
FAX 866-632-6961

# Warranty registration form

Complete form immediatley and fax back to (886)-632-6961

Dealer: \_\_\_\_\_

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

Location (City, State): \_\_\_\_\_

Install Date: \_\_\_\_\_

Customer: \_\_\_\_\_

Hour Meter: \_\_\_\_\_

Contact: \_\_\_\_\_

Installed By: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

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

Options: 1. \_\_\_\_\_

4. \_\_\_\_\_

2. \_\_\_\_\_

5. \_\_\_\_\_

3. \_\_\_\_\_

6. \_\_\_\_\_

Pads: \_\_\_\_\_

Brushes: \_\_\_\_\_

Squeegee Size: \_\_\_\_\_

Side Brooms: \_\_\_\_\_

Buyer's Representave has:

1. Received instruction in proper operation of this machine.
2. Received operator's manual for this machine.
3. Been made aware that any operator should read the manual before operating this machine.

Dealer Rep. Print: \_\_\_\_\_

Sign: \_\_\_\_\_

Customer Print: \_\_\_\_\_

Sign: \_\_\_\_\_

# Specifications

# 275

## CONSTRUCTION

Frame:	(7-gauge) 3/16" steel
Rear Axle Capacity:	5,200 pounds
Rear Wheels (non-marking):	(2) 12" x 5"
Front Wheel Drive Capacity:	2,300 pounds
Front Wheel (non-marking):	(1) 12" x 4"
Dimensions: (L x W x H):	59" x 30" x 50"
Weight (w/ batteries):	1,566 pounds
Weight (w/out batteries):	846 pounds

## BURNISHING SYSTEM

Pad Diameter:	(1) 27 inches
Pad Motor Power (standard):	(1) 4.0 hp
Pad Motor Power (optional):	(1) 4.0 hp
Pad Speed:	1300 rpm
Pad Engagement:	Dual Belt
Pad Pressure:	0 - 75 pounds
Pad Pressure Settings:	Infinite

## BATTERY SYSTEM

Battery AH Rating:	(6) 396 AH or (12) 396 AH
Battery Run Time:	Up to 8 hours
Charger (110v / 60 Hz / automatic):	36 volt / 36 amp

## FILTERING SYSTEM

Vacuum Description:	PASSIVE or ACTIVE
Filtering Material:	Polymer Felt
Filter Rating:	1 Micron
Size:	220 square inches
Filter Capacity:	150 cubic Inches
Screen Material:	Stainless Steel
Vacuum Power:	0.75 hp (optional)
Airflow Rating:	70 cfm

## DRIVE SYSTEM

Transport Power:	2.0 hp
Forward Speed Control:	0 5 mph
Reverse Speed Control:	0 3 mph
Braking System:	Dynamic w/ Auto Parking Brake
Minimum Aisle for U-Turn:	63"

## PRODUCTIVITY

Cleaning Rate/Hour (Max):	47,000 sq. ft./hr
Cleaning Rate/Hour (Normal):	36,849 sq. ft./hr

## GENERAL

Sound Level:	70 dBA at Driver's Position
Gradeability:	11 degrees / 19%

Manufactured By:  
R.P.S. Corporation  
P.O. Box 386  
Racine, WI 53401  
Phone: (800) 634-4060 (N. America)  
Fax: (866) 901-3335

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Since our policy is one of constant improvement, all  
specifications are subject to change without notice.

# Common wear parts

<u>Pad</u>	<u>Pad Function</u>	<u>Results</u>	<u>275 Part Number</u>
Image ultra high speed - beige	Ultra high speed High speed buffing And burnishing.	For high speed buffing and burnishing. For frequent burnishing on soft to medium finishes.	27-4221
Luster lite - blue	Ultra high speed buffing and burnishing.	For burnishing soft floor finishes. May be used on a daily basis. Ideally suited for top dressing highly polished floors.	27-4222
Combo ultra high speed	Ultra high speed buffing and burnishing.	Blended polyester and natural fibers. For frequent burnishing on medium finishes.	27-4223
Porko ultra high speed	Ultra high speed buffing and burnishing.	Blended natural fiber pad. For frequent minimal burnishing on hard finishes.	27-4224
Porko elite	Ultra high speed buffing and burnishing.	Blended natural fiber pad works on all UHS machines. For minimal burnishing on medium to hard finishes.	27-4225
Porko plus	Ultra high speed buffing and burnishing.	High content of natural fibers. Ideal for minimal burnishing on hard finishes.	27-4226

# Safety Messages

Your safety, and the safety of others, is very important and operating this unit safely is an important responsibility.

To help you make informed decisions about safety, we have provided operating procedures and other safety information in this manual. This information informs you of potential hazards that could hurt you or others.

It is not practical or possible to warn you of all the hazards associated with operating this unit. You must use your own good judgment.

This is intended for commercial use. It is designed to be used on hard floors in an indoor environment, with the recommended pads.

## 1. DO NOT OPERATE UNIT:

Unless trained and authorized.  
Unless operator manual is read and understood.  
If unit is not in proper operating condition.

## 2. WHEN OPERATING UNIT:

Remove loose objects from the floor that may be projected from the revolving burnisher pad.  
Keep hands and feet away from revolving pads.  
Do not operate machine where flammable liquids or gasses are present.  
Use extreme caution when maneuvering.

## 3. BEFORE LEAVING:

Make sure machine is turned off.  
Stop on level surfaces.  
Disconnect batteries.

## 4. BEFORE SERVICING:

Stop on level surface, and secure machine.  
Disconnect batteries.

# !! Safety Precaution!!

WARNING: Hazardous voltage. Shock, burns or electrocution can result. Always disconnect the batteries before servicing machine.

WARNING: Batteries emit hydrogen gases. Explosion or fire can result. Keep sparks and open flames away.

WARNING: Charge unit in a well ventilated area, and keep battery compartment open when charging. Explosion or fire could result.

WARNING: Battery acid can cause burns. Wear protective eye wear and gloves when servicing batteries.

WARNING: Do not store outdoors or pressure wash. Prevent electronic components from getting wet.

WARNING: The use of parts and solutions other than that recommended by the manufacturer may cause damage or endanger people.

WARNING: Dress safely. Do not wear rings or metal wrist watches while working on this machine. They can cause an electrical short, which, can cause serious burns. Do not work on this machine while wearing a tie, scarf or other loose, dangling neckware or clothing. These loose items can tangle in the rotating parts and cause serious injury or even death.

WARNING: Do not use the machine as a step ladder or chair.

WARNING: Only operate this machine from the operators position. It was not designed to carry passengers.

WARNING: Do not operate this machine on ramps or uneven surfaces. When climbing a ramp, always drive the machine in forward straight up or down the ramp. Never drive across the incline. Do not back down or turn on ramps!

WARNING: Always use the charger provided by the manufacturer to charge the machine. It is an automatic charger, specifically designed to charge at the appropriate rate. If you must use a different charger, disconnect the batteries before charging. This will prevent damage to the electronic speed controller.

WARNING: Understand the dynamic braking system before you operate the machine on ramps. Machine does not coast.

WARNING: Do not park the machine on ramps or slopes.

WARNING: Do not operate the machine if any parts have been removed or damaged.

WARNING: Do not remove, paint over, or destroy warning decals. If warning decals become damaged, they must be replaced.

WARNING: Do not operate machine in unsafe condition. If the machine is in need of repair or is in any way unsafe to operate, the matter should be reported immediately to the shift supervisor. Do not operate the machine until it is returned to proper operating condition.

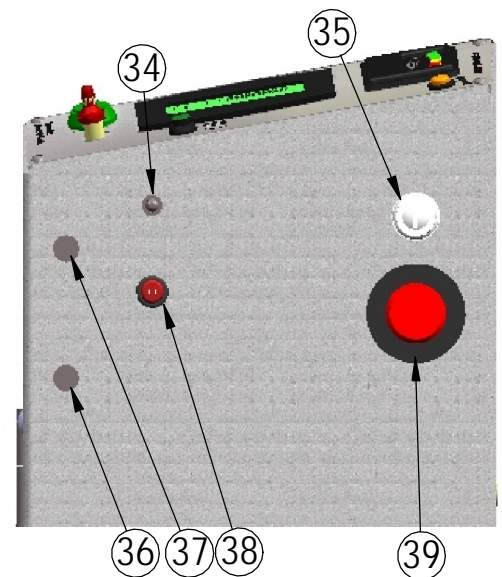
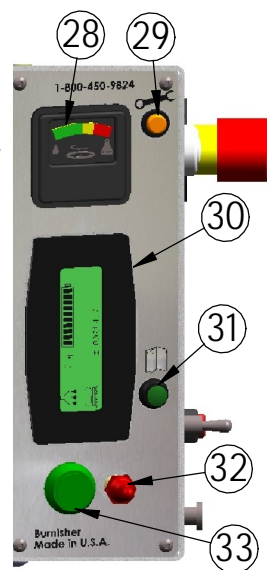
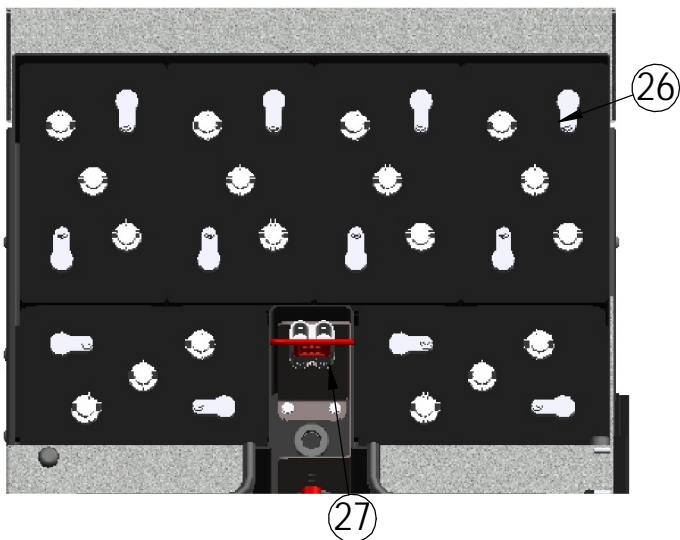
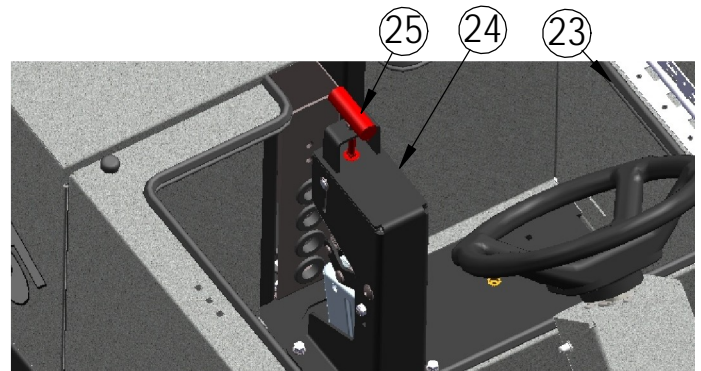
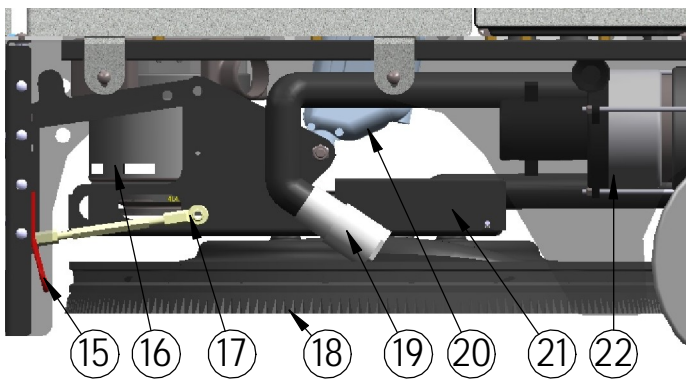
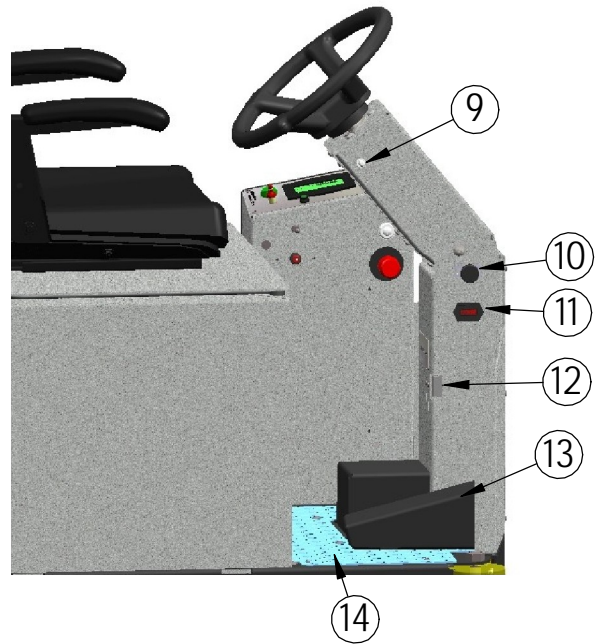
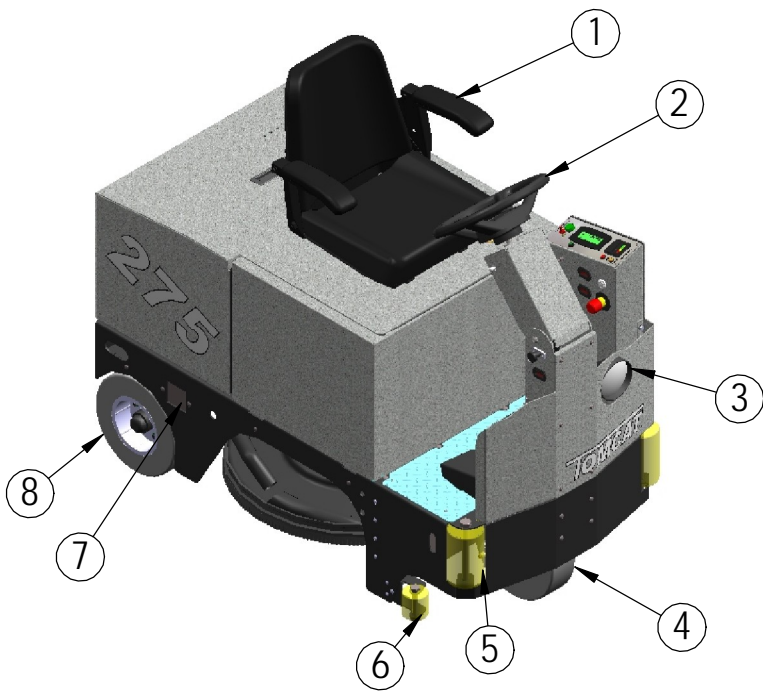
WARNING: This machine must only be operated by trained operator. As part of his or her training, they must read this manual thoroughly. If extra copies are needed, contact your local dealer.

WARNING: Always turn off the machine, before leaving it unattended.

WARNING: Do not operate over electrical floor outlets. May result in serious injury.



# Machine Controls and Features



# Controls and Functions

See figures (1-6) on page 7

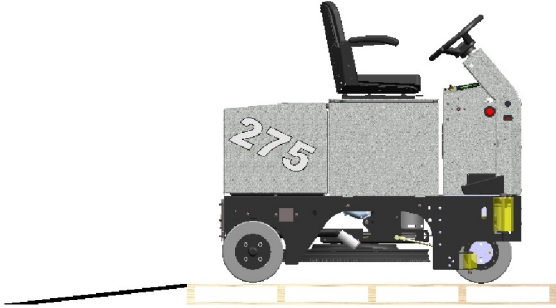
1. Seat: Adjustable seat for operator comfort and ease of entry.
2. Steering wheel: Used to steer the machine.
3. Headlight: Helps you see in low light areas and to warn oncoming traffic.
4. Front wheel: Steers and propels machine.
5. Corner roller bumpers: helps prevent damage to machine when cleaning close to walls and other objects.
6. Lower roller bumpers: Helps prevent damage to deck.
7. Onboard Charger: Plug charger into outlet to charge machine. (optional)
8. Rear tires: Non-marking and extra wide tires for stability.
  
9. Horn button: sounds horn.
10. Adjustable steering: adjustable steering wheel for comfort and ease of entry.
11. Hour Meter: Keeps track of how many hours are on the machine.
12. Charge port: Gray 50 used to receive charger input. (Note: only use charger provided)
13. Foot pedal: Makes machine go and release pedal to stop.
14. Non slip floor plate: helps prevent slipping when getting on and off of machine.
  
15. Quick disconnect power: Allows you to easily disconnect power to the deck.
16. Burnisher motor: This motor drives the burnishing deck through two rpm reducing pulleys.
17. Adjustable Arm: Adjusts the pitch of the burnishing deck.
18. Shroud: The shroud contains dust created from burnishing.
19. Dust control hose: Two dust control hoses pull dust and debris from shroud to filter box.
20. Actuator: The actuator lifts and lowers the deck.
21. Belt Guard: The belt guard protects the belts and pulleys from debris.
22. Vacuum motor: Provides suction to vac box.
  
23. Second Battery Compartment: The machine is capable of holding a second set of six batteries.
24. Actuator tower: Provides down pressure adjustment.
25. Spring Adjustment Knob: Increases or decreases the pad pressure.
  
26. Batteries: The machine comes with one(standard) set of six batteries.
27. Quick Disconnect battery plug: Allows you to disconnect the batteries easily to work on machine safely.
  
28. Burnishing deck pressure gauge: Settings green (safe operating range) - red (overload).
29. Burnishing motor brush indicator: Indicates when the burnisher motor needs new brushes.
30. LCD screen display: Lists functions and settings of the machine.
31. Menu control: Scrolls through different options on the LCD display.
32. Forward/Reverse switch: Controls the direction of the traction motor.
33. One touch button: Activates the burnishing deck, and dust control system simultaneously.
  
34. Vacuum switch: Allows you to turn on vacuum motor separate from the one touch button.
35. Key switch: Turns power to machine on and off.
36. (+) 15 amp resetable circuit breaker: (15 amp) positive bus bar.
37. (-) 15 amp resetable circuit breaker: (15 amp) negative bus bar.
38. Resetable 80 amp burnisher motor circuit breaker: .
39. Emergence shut off: (optional) Shuts machine down in a emergency.

# Machine Preperation

## Uncrating machine

Carefully check the crate for any sign of Damage. Batteries are in the unit.

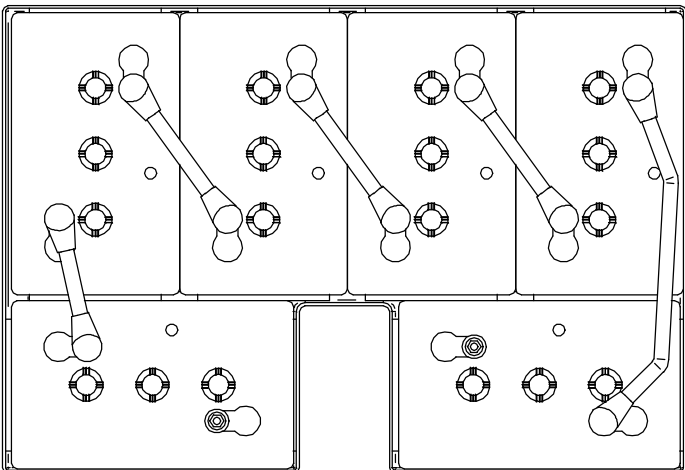
To uncrate the machine, remove banding from around the crate. Take off the top and sides And dispose of properly. Remove banding from machine. Remove the chocks around the drive wheels. Fold down ramp, and roll machine off of the base. Notify the carrier immediately if concealed damage is discovered.



## Connecting batteries

Your machine is equipped with (six) 6 volt, Deep cycle, 395 amp hours batteries, which Form a 36 volt system. Maximum battery Dimensions are 7"w x 15"l x 15"h.

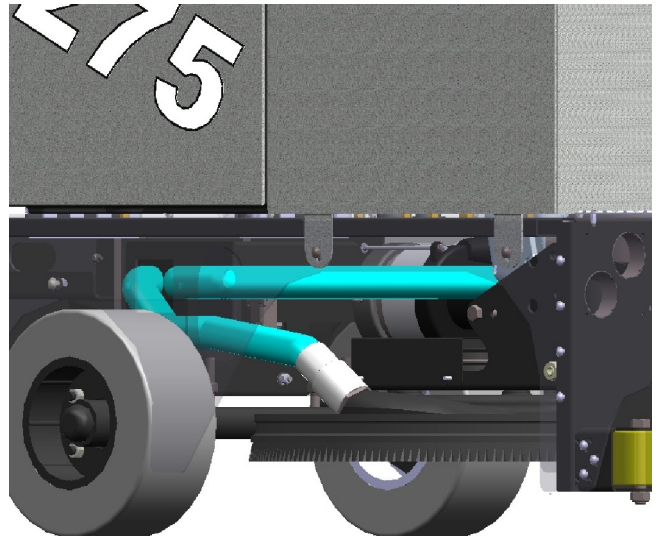
1. Turn all switches to the off position and remove key.
2. Hinge open the battery access lid to access the battery compartment.
3. All of the six battery cables are connected to the batteries. Locate any loose ones and connect to the open terminal. Tighten with 9/16" wrench. (see below)
4. Turn on main power switch and check the battery condition meter to ensure correct installation. Charge batteries if needed. (see: battery charging)



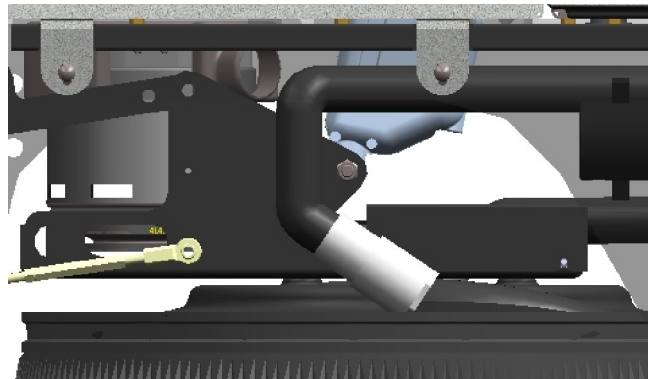
## Connecting hoses

Your machine is also equipped with two vacuum hoses which need to be connected for the dust control to work properly.

1. Turn all switches to the off position.
2. Hinge open the battery access lid to access the rear of the filter box and fan connections.
3. Check to see if hoses are clamped down to the shroud and the filter box securely. (you should not be able to pull them off easily) if hoses are loose tighten the hose clamp with a screwdriver. (see below)



4. Check to see if hoses are clamped down to the shroud. Hose should have just enough slack to move up and down with the scrub deck and not interfere with other moving parts. (See below)



# MACHINE SETUP

## ATTACHING PAD

1. Turn on machine power

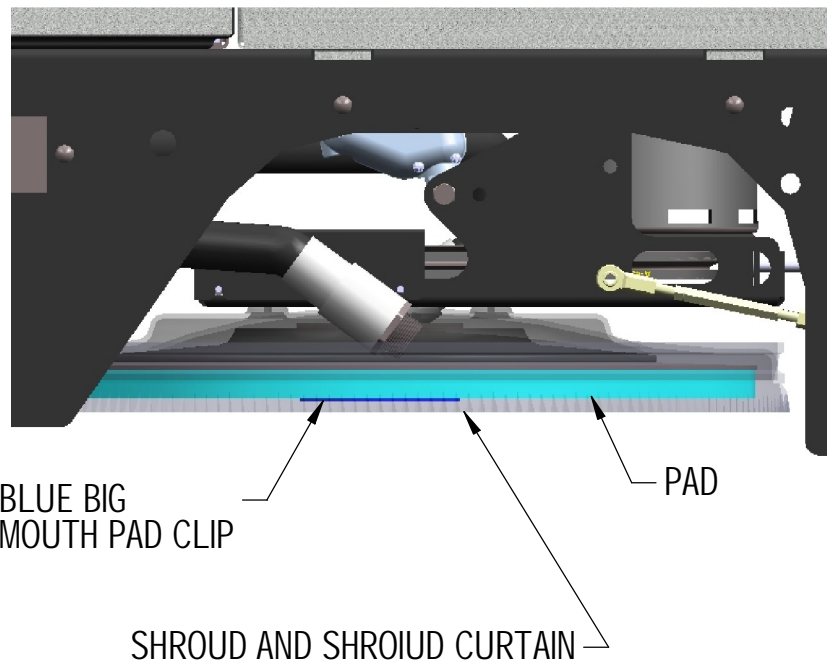
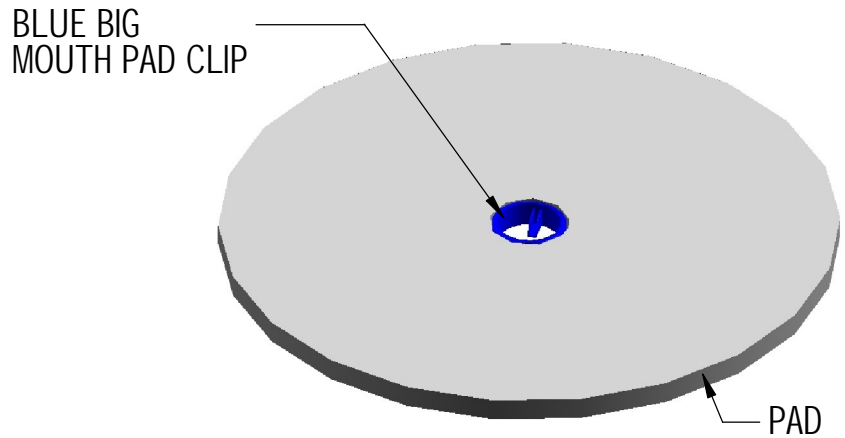
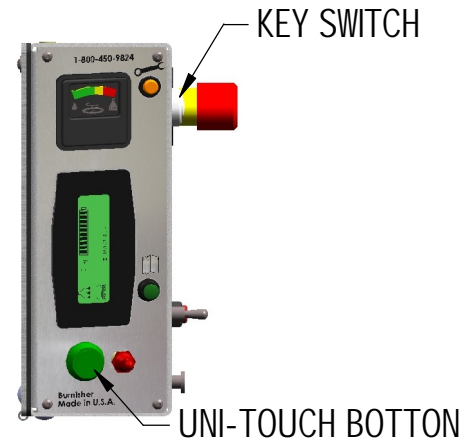
2. Assure that the deck is raised to the up position by verifying that the uni-touch button is not depressed (A yellow ring will appear around the side of the uni-touch button). Turn machine power back off and remove key. (See right)

3. Remove blue big mouth from pad holder.

4. Place pad on top of locking clip and slide both below burnishing deck directly into the center of one burnishing disk. (see below)

5. With pad and clip directly in the center of the burnishing disk push up and screw in the pad clip. (Hand tighten only) (see below)

6. Run machine and check for vibrations. If deck vibrates badly the pad may not be centered on disk correctly. Remove pad and reinstall pad in the center of disk.



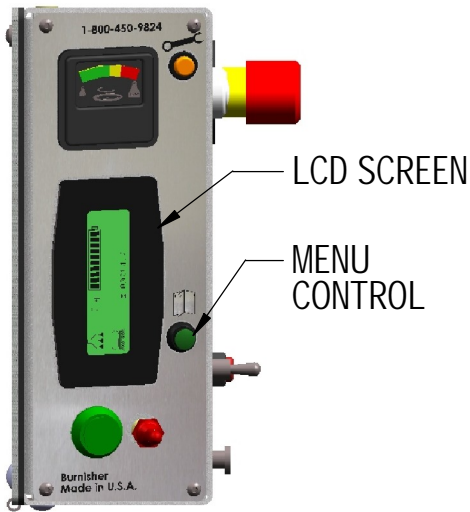
\*\*\*FOR CORRECT PAD APPLICATION , CALL YOUR LOCAL DEALER\*\*\*

# Operation

Read and understand the safety section on page 5 and 6 before operating machine.

## Pre- burnishing Check list

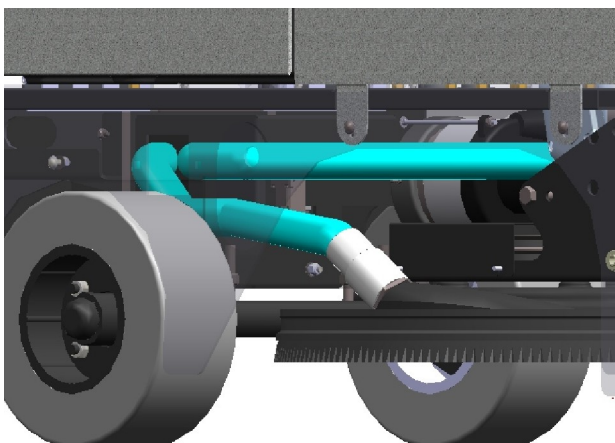
1. Check battery condition gauge on the central command II LCD screen. (See below) To check gauge push menu control button until battery gauge appears. Make sure batteries are fully charged before using.



2. Check condition of pad and make sure it is securely in place.

3. Check hose connections from filter box to fan and, from filter box to shroud. (See below)

5. Check condition of shroud curtain shroud curtain needs to be in good condition for dust control system to work properly. (See below)



# Operating hints

## One Pass Burnishing

Steps: (see below)

1. Turn machine on with the key switch.

2. Lower burnishing head to the floor by simply depressing the green "uni touch" button.

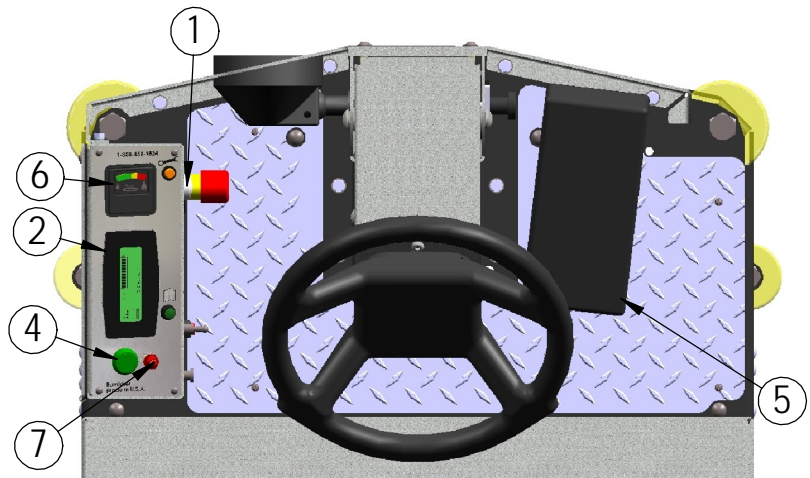
3. The dust control will activate automatically when you begin burnishing.

4. Begin burnishing by depressing the foot pedal slowly and then to the speed required, the headlight will illuminate.

6. Once the pad begins to move, check the pressure gauge. Start burnishing with in the green marks, do not use yellow marks without management approval.

7. To operate machine in reverse, simply switch the reverse switch to the reverse position, back up alarm will sound ( if equiped) and your speed is reduce to roughly 50% of forward speed.

8. To stop the machine, let off the foot pedal, and the machine will stop automatically.



# Battery charging

*CAUTION: The following instructions are intended for the 36v charger supplied with the machine. Do not use any other charger with this machine.*

## Charger specifications

Output voltage of 36 volts.

Output current of 36 amps max.

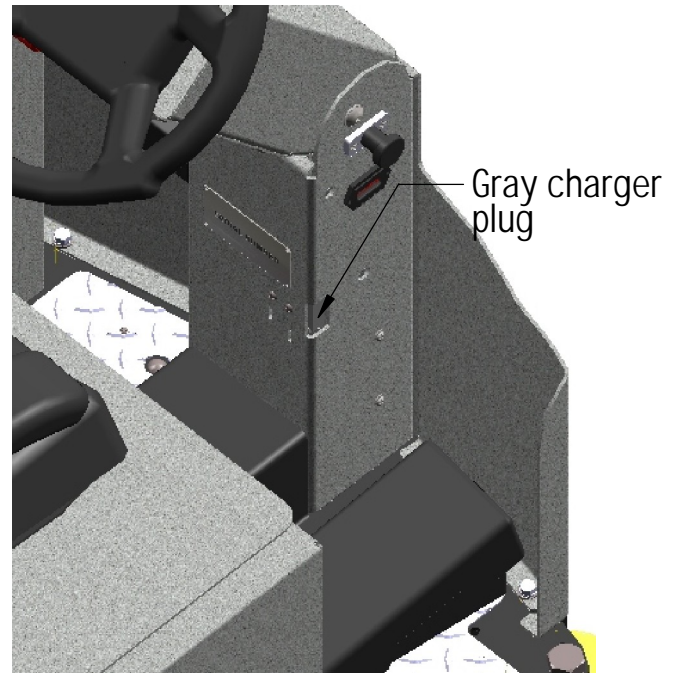
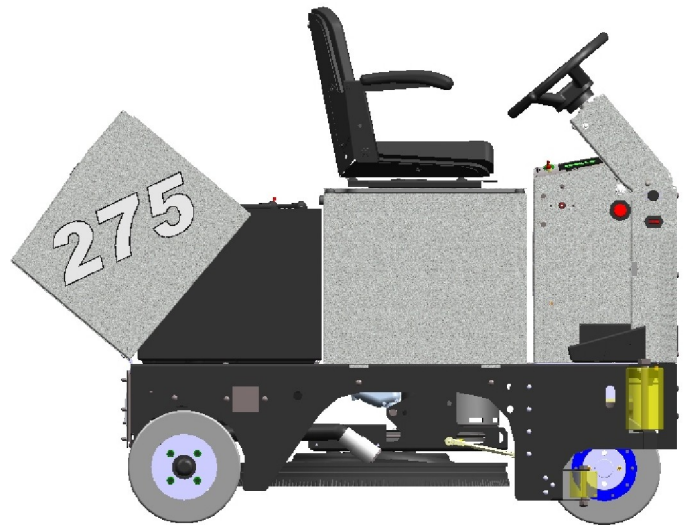
Input voltage of 110 volts/60 Hz.

Automatic shut off circuit.

Made for deep cycle batteries.

**Danger:** always charge batteries in a well ventilated area. Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and flame away. Shield eyes when servicing batteries and avoid contact with battery acid. Leave rear hood open when charging!

1. Transport machine to a well ventilated area for charging.
2. Turn the machine off.
3. Hinge opens the battery access hood to expose the batteries. (Caution: always wear eye protection when batteries are exposed)
4. Check the water level in each battery. Do not charge the machine unless the water is slightly higher than the plates. If needed, add enough distilled water to just slightly cover the plates. Do not over fill. Batteries can overflow during charging. Replace caps before charging.
5. With the grey charger plug disconnected from the machine, plug the charger power cord into a grounded 110 volt standard wall outlet.
6. Connect the grey charger plug into the battery charging port located on the lower portion of the steering tower.
7. The charger will automatically begin charging, and automatically shut off when fully charged (check gauge)
8. After the charger has turned off, unplug the grey charger plug from the machine and disconnect the charger from the wall outlet.
9. Recheck the cell level after charging. If needed, add distilled water up to the correct level. Be certain to replace the caps securely and to wipe off the top of the batteries with a clean cloth.



# Maintenance

## Daily Maintenance

1. Check pad condition. (Replace if necessary)
2. Check battery charge.
3. Clean dust control filters.
4. Check hoses and verify there are no clogs.
5. Check pads for wear and replace if needed.
6. Charge unit and verify that charger is operating properly

## Monthly Maintenance

1. Check flex driver
2. Check to see if battery cables are tightened and clean. (Tighten if needed)
3. Check parking brake
4. Check condition of burnishing deck actuator.
5. Check condition of burnishing deck drive belts

## Weekly Maintenance

1. Check battery water level.
2. Check condition of all three tires.
3. Check condition of dust curtains on shroud.
4. Check condition of dust control hoses.
5. Check to see if vacuum exhaust is clear.

## Yearly Maintenance

1. Call your local dealer for yearly maintenance

# Preventative maintenance records

CUSTOMER INFORMATION							
CUSTOMER							
ADDRESS							
CITY				STATE		ZIP CODE	
MACHINE INFORMATION							
MODEL #				SERIAL #			
WORK ORDER#				HOUR METER:			
BATTERY CONDITION			Cell #1	Cell #2	Cell #3		
Battery # 1 Hydrometer Reading							
Battery # 1 Water Condition							
Battery # 2 Hydrometer Reading							
Battery # 2 Water condition							
Battery # 3 Hydrometer Reading							
Battery # 3 Water Condition							
Battery # 4 Hydrometer Reading							
Battery # 4 Water condition							
Battery # 5 Hydrometer Reading							
Battery # 5 Water Condition							
Battery # 6 Hydrometer Reading							
Battery # 6 Water Condition							
Battery # 7 Hydrometer Reading							
Battery # 7 Water Condition							
Battery # 8 Hydrometer Reading							
Battery # 8 Water condition							
Battery # 9 Hydrometer Reading							
Battery # 9 Water Condition							
Battery # 10 Hydrometer Reading							
Battery # 10 Water condition							
Battery # 11 Hydrometer Reading							
Battery # 11 Water Condition							
Battery # 12 Hydrometer Reading							
Battery # 12 Water Condition							
Clean Battery Tops. Check Battery Cable and Terminal Condition							
NOTES:							

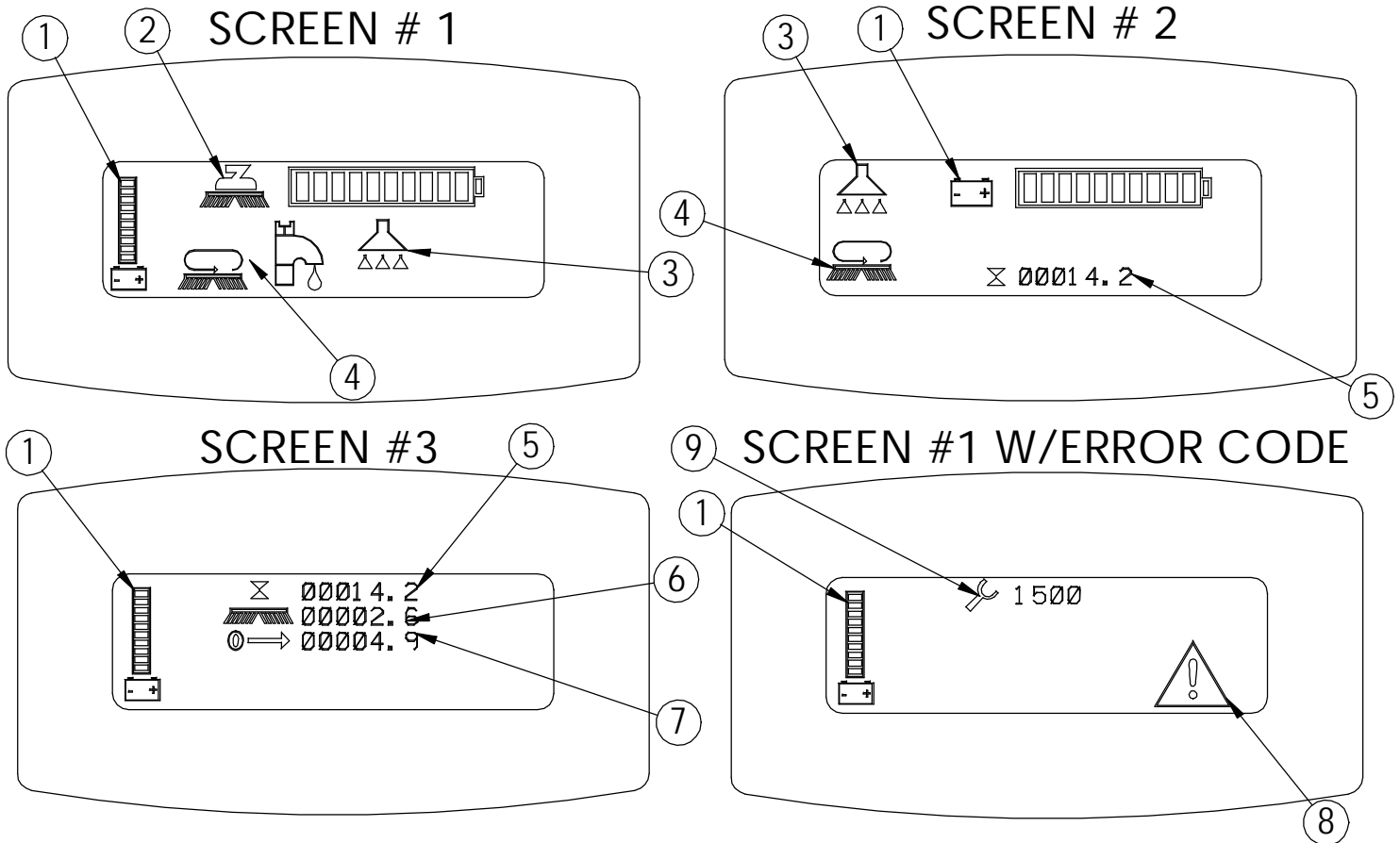


# Preventative maintenance records

PAD CONDITION							
Pad			Good	Worn	Needs Replacement		
Pad retainer			Good	Worn	Needs Replacement		
Pad Holder Condition			Good	Worn	Needs Replacement		
CHECK OPERATION AND CONDITION OF:							
	IN SPEC	REPAIR	PROBLEM				
Steering wheel Tilt Mechanism							
Key Switch							
Horn							
Head Light							
LCD Display							
Page Button							
Pad Pressure Adjustment							
Foot Pedal							
Reverse Switch							
Back Up Alarm							
Burnish Switch							
Burnishing Deck Lift System							
Pad Motors & Motor Brushes							
Active Vacuum Switch							
Vacuum Motor performance							
Strobe Light							
Battery Charger Connectors							
Battery Charger							



# LCD Screen Menu Displays



\*\*\* USE GREEN MENU SELECTION BUTTON ON CONTROL PANEL TO CHANGE SCREENS\*\*\*

1. Battery level indicator - indicates the energy level remaining in the batteries. (Shown on all menu displays)
2. Burnisher deck down pressure gauge - Indicates pressure on the burnishing pads.
3. Vacuum/fan on - tells you when the active dust collection fan is on.
4. Burnishing motors on - tells you when the burnishing motor is running.
5. Key switch hour meter - tells you the total hours the machine has been on.
6. Burnishing pad hour meter - tells you the total hours the burnishing motors have been used.
7. Transport hour meter - tells you the total hours the drive system has been used.
8. Error warning symbol - indicates when there is machine fault,- Displays diagnostic error code.
9. Diagnostic code - when the machine has detected an error it will display the warning symbol and a diagnostic code which indicates what's wrong.

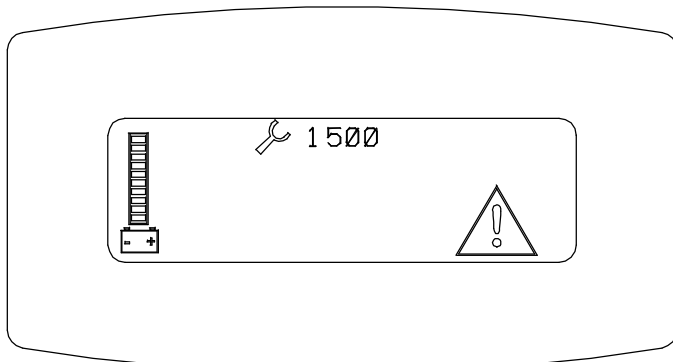
( For common error codes and descriptions see page 18)

# Troubleshooting Central Command

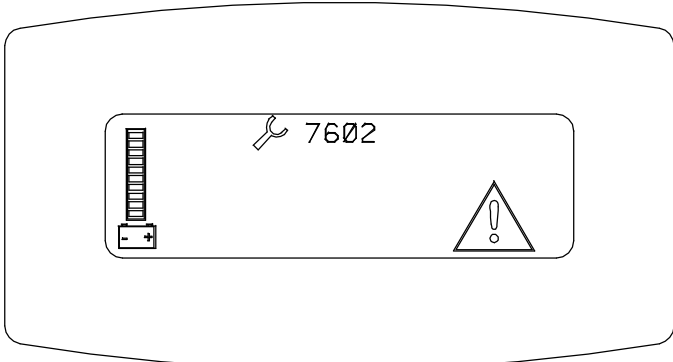
NOTE: This machine is operated by a sophisticated electronic "controller" that has many fail-safes within it. The controller analyzes problems and displays a four-digit numeric code of what is wrong in the LCD window.

Most of these codes require a technician's attention. You should not attempt repairs you are uncomfortable with, especially if you are not used to working on electronics.

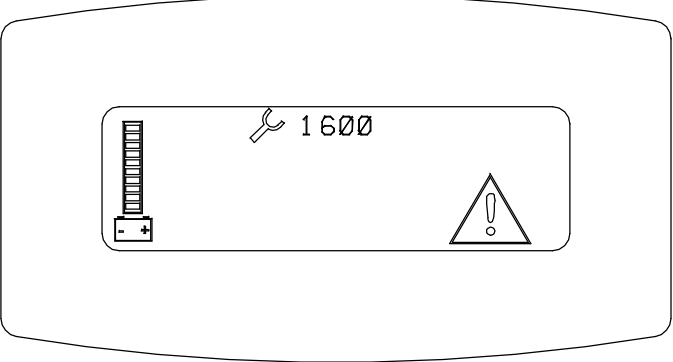
The complete list of codes is published in the simplified electronic troubleshooting manual, which is available to technical people. However, we have included the basic codes that you can usually resolve yourself.



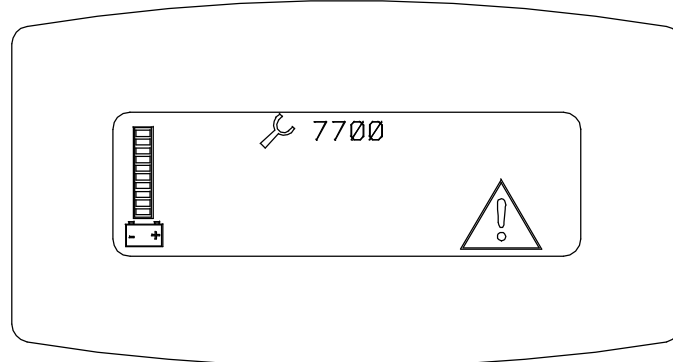
1. 1500 ERROR. Parking brake circuit fault. Call a technician.



2. 7601 AND 7602 ERROR. Pad current over load. This can occur when the pads hit a bump in the floor. To restart the pads, turn off the key and turn it on again. To avoid this error, either slow down on bumpy parts of the floor, or reduce downpressure on the pads.

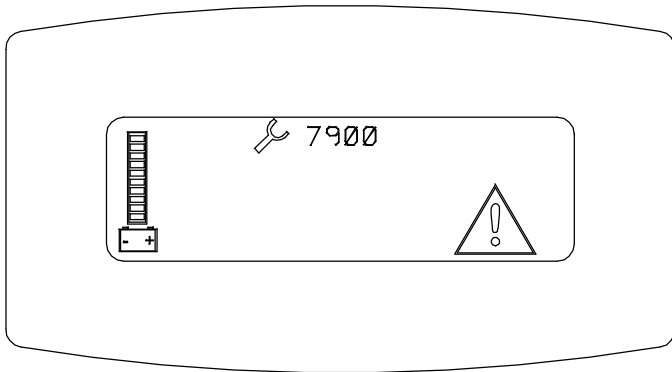


3. 1600 ERROR. Voltage exceeds the maximum. Either the batteries are mis-wired, or the charger is still plugged into the machine.

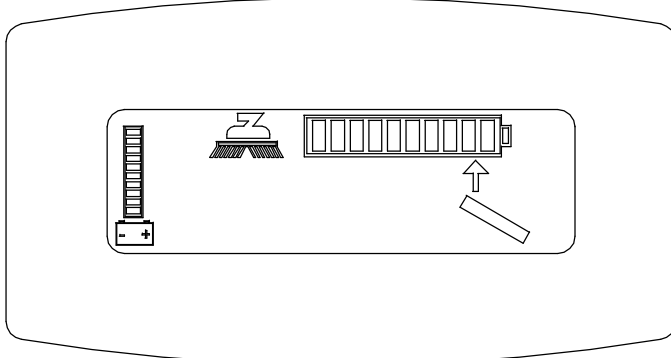


4. 7700, 7701, 7702, AND 7703 ERROR. The vacuum system has malfunctioned. Turn off key and turn on again to clear. If the code does not clear call a technician.

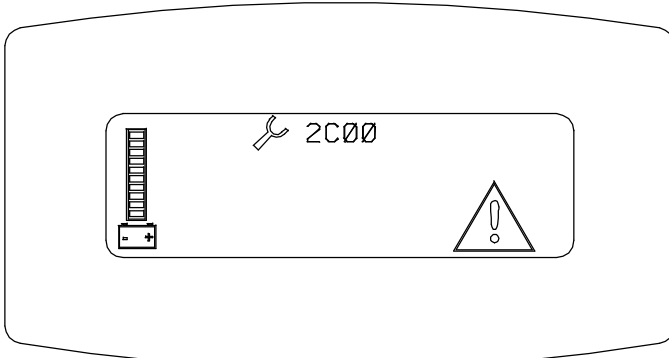
# Troubleshooting Central Command



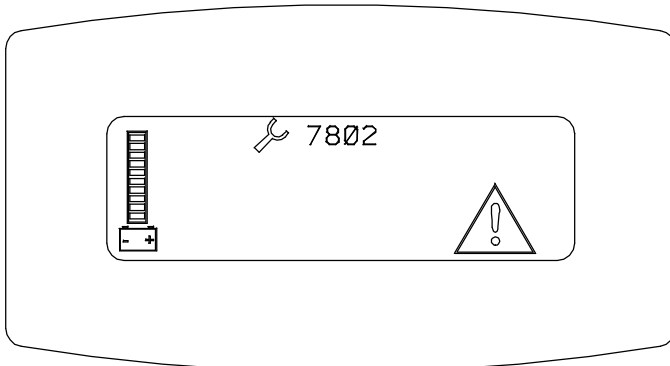
5. 7900 AND 7901 ERROR. The emergency stop button is depressed.



6. HIGH THROTTLE ERROR. You pressed the drive button before turning on the key. Turn off the key, release the drive button and try again.



7. 2C00 AND 2C01 ERROR. Low voltage warning. Voltage has dropped down below the minimum required to operate the machine. If you wait a few minutes, the batteries may coast up a bit in voltage, allowing you to drive very slowly to the recharge station.



8. 7802 ERROR. The traction motor was used to climb a ramp, and was running up the ramp for more than the 60 seconds allowed for this. Turn off the key, turn on again, and continue. You should not use this machine to climb ramps so steep and so long that this code comes up repeatedly, or you could overheat the traction motor.

9. All other error codes. Turn off the key, and disconnect the positive battery cable from the batteries for more than one minute (*the time is needed to drain the controller's on-board capacitor*). Reconnect the cables, being sure that they are tight, if they are loose you will burn the battery cables or the battery. If you overtighten the cables you can damage the battery's lead terminal.

10. If the problem cannot be solved by any of these solution's call your local dealer's service department.

# Trouble Shooting

<u>Problem</u>	<u>Cause</u>	<u>Solution</u>
No power, nothing operates.	Faulty key switch. Batteries need charging. Faulty battery. Loose battery cable. Main circuit breaker tripped.	Contact local servicing dealer. See charging batteries. Replace battery. Tighten loose cable. Wait 5 minutes for auto reset. determine cause and correct.
Burnishing motor does not operate.	Burnishing deck is not down. Foot pedal is not depressed. Burnishing circuit breaker tripped.  Carbon brushes worn. Faulty motor or wires.	Put deck down. Engage foot pedal. Wait 5 minutes for auto reset Determine cause and correct. Contact local servicing dealer. Contact local servicing dealer.
Drive motor does not operate.	Recharge switch misadjusted. Faulty speed controller or wires. Faulty drive motor. Faulty wiring. Carbon brushes worn.	Contact local servicing dealer. Contact local servicing dealer. Contact local servicing dealer. Contact local servicing dealer. Contact local servicing dealer.
Dust control fan does not operate.	Faulty vacuum switch. Vacuum circuit breaker tripped.  Faulty vacuum motor. Carbon brushes worn.	Try operating "white " toggle. Wait 5 minutes for auto reset. Determine cause and correct. Contact local servicing dealer. Contact local servicing dealer.
Drive motor runs incorrectly.	Faulty speed controller or wires. Faulty potentiometer. Loose wires.	Contact local servicing dealer. Contact local servicing dealer. Contact local servicing dealer.

# Trouble Shooting

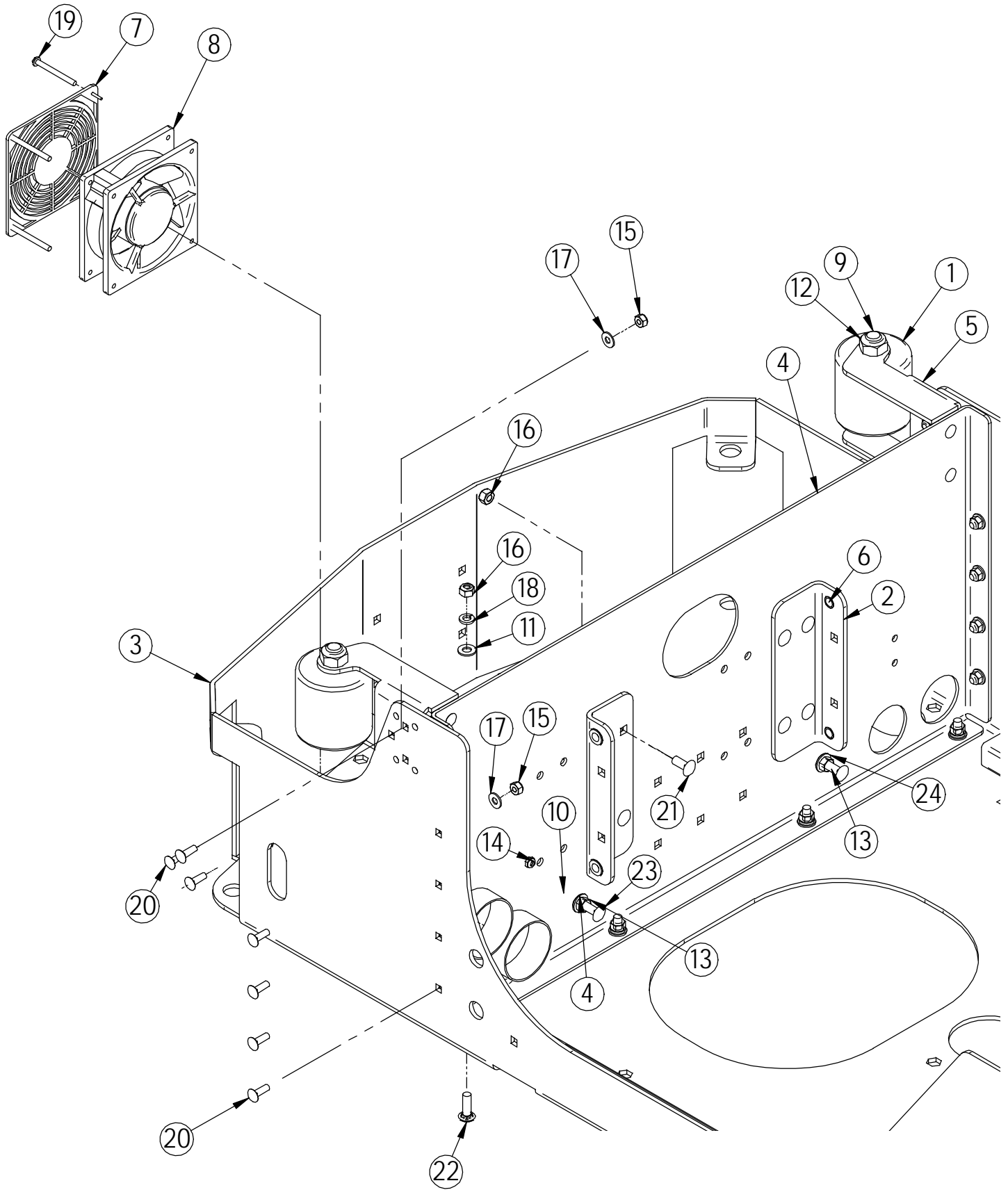
<u>Problem</u>	<u>Cause</u>	<u>Solution</u>
Poor dust control.	Main vacuum hose disconnected. Burnishing deck hose disconnected. Burnishing deck hose clogged. Damaged main vacuum hose. Damaged burnishing deck hose. Filter clogged. Filter door not closed tightly.  Filter door gasket faulty. Filter full. Torn shroud curtain. Faulty vacuum Motor. Battery charge is low.	Reconnect hose. Reconnect hose. Remove debris. Contact local servicing dealer. Contact local servicing dealer. Clean out filters. Adjust screw on door clamp to tighten seal. Contact local servicing dealer. Remove debris. Contact local servicing dealer. Contact local servicing dealer. Charge batteries overnight.
Poor burnishing quality.	Burnishing pads worn out. Debris stuck to burnishing pad. Torn burnishing pad. Faulty disk pad motor. Battery charge is low.	Replace pads. Remove debris. Replace pads. Contact local servicing dealer. Charge batteries overnight.
Burnishing scrub deck noisy.	Missing burnishing pad. Burnishing pad worn out. Torn curtain hitting burnishing disks. Damaged shroud.	Replace pads. Replace pads. Contact local servicing dealer. Fix or replace shroud.
Rear tires noisy.	Bearings dry. Faulty hubs.	Grease bearings. Contact local servicing dealer.
Poor traction.	Excessive burnishing pad. Pressure. Worn drive tire.	Reduce pressure with switch.  Contact local servicing dealer.
Short run time.	Batteries run down. Batteries still down. Batteries low on water.  Batteries over cycled.	Charge batteries twice Contact local servicing dealer. Fill with distilled water to 3/4" above the lead plates. Contact local servicing dealer.

# Model 275 machine parts section

Front wall	Pages 23-24
Front wheel drive	Pages 25-28
Filter door and Rear Hood Hinges	Pages 29-30
Rear axle mount	Pages 31-32
Burnisher Deck	Pages 33-36
Actuator Pivot	Pages 37-38
Steering Upright	Pages 39-40
Central Command	Pages 41-42
Machine Top Components	Pages 43-44
Batteries and Covers	Pages 45-46



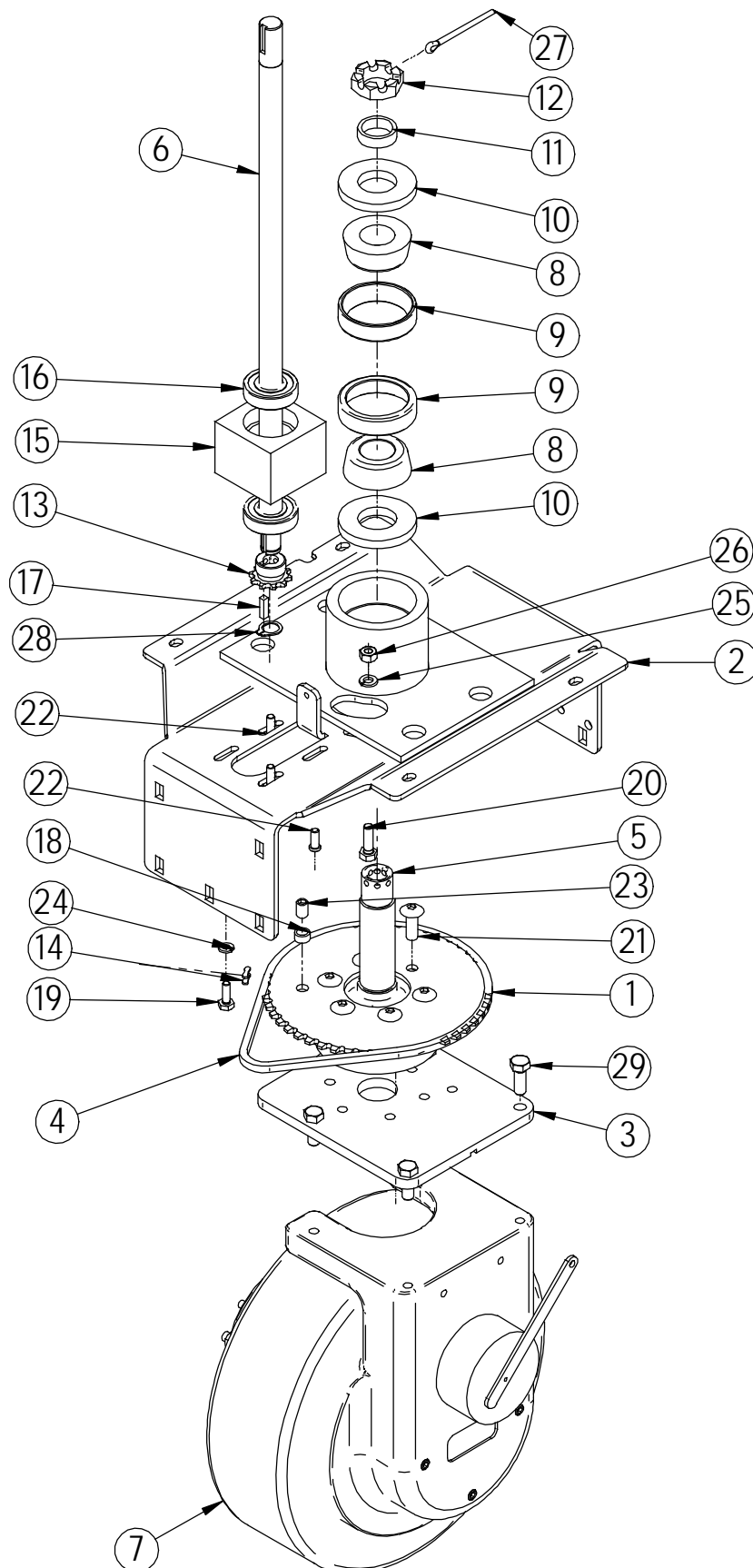
# FRONT PANEL



# FRONT PANEL

Item	Part No.	Part Description	Qty
1	21-1127	ROLLER	2
2	250-1265	SCRUB ARM BRACKET	2
3	275-1000	FRAME WELDMENT	1
4	275-1260	FRONT PANEL	1
5	290-1128	LOWER ROLLER BRACKET	2
6	290-1233	3/8" ID, 1/2" OD, 1/4" LG BEARING	4
7	5-212A	FAN COVER	1
8	5-218	48 VOLT COOLING FAN	1
9	H-11319	HB 5/8" - 11 X 4"	2
10	H-312HCN	HCN 5/16" - 18	2
11	H-33080	FW 5/16" SAE	7
12	H-37036	NYL 5/8" - 11	2
13	H-70711	HN 5/16" - 18 SS	2
14	H-70858	NYLOK #10-32 SS	4
15	H-70860	NYLOK 1/4" - 20 SS	18
16	H-70861	NYLOK 5/16" - 18 SS	15
17	H-71013	FNW 1/4" X 5/8" SS	14
18	H-71065	LW 5/16" SS	7
19	H-72556	PPH #10-32 X 2" SS	4
20	H-74419	CB 1/4" - 20 X .75" SS	18
21	H-74429	CB 5/16" - 18 X 3/4" SS	8
22	H-74430	CB 5/16" - 18 X 1" SS	4
23	H-74433	CB 5/16" - 18 X 2" SS	2
24	H-78015	FW 5/16" X 3/4" SS	2

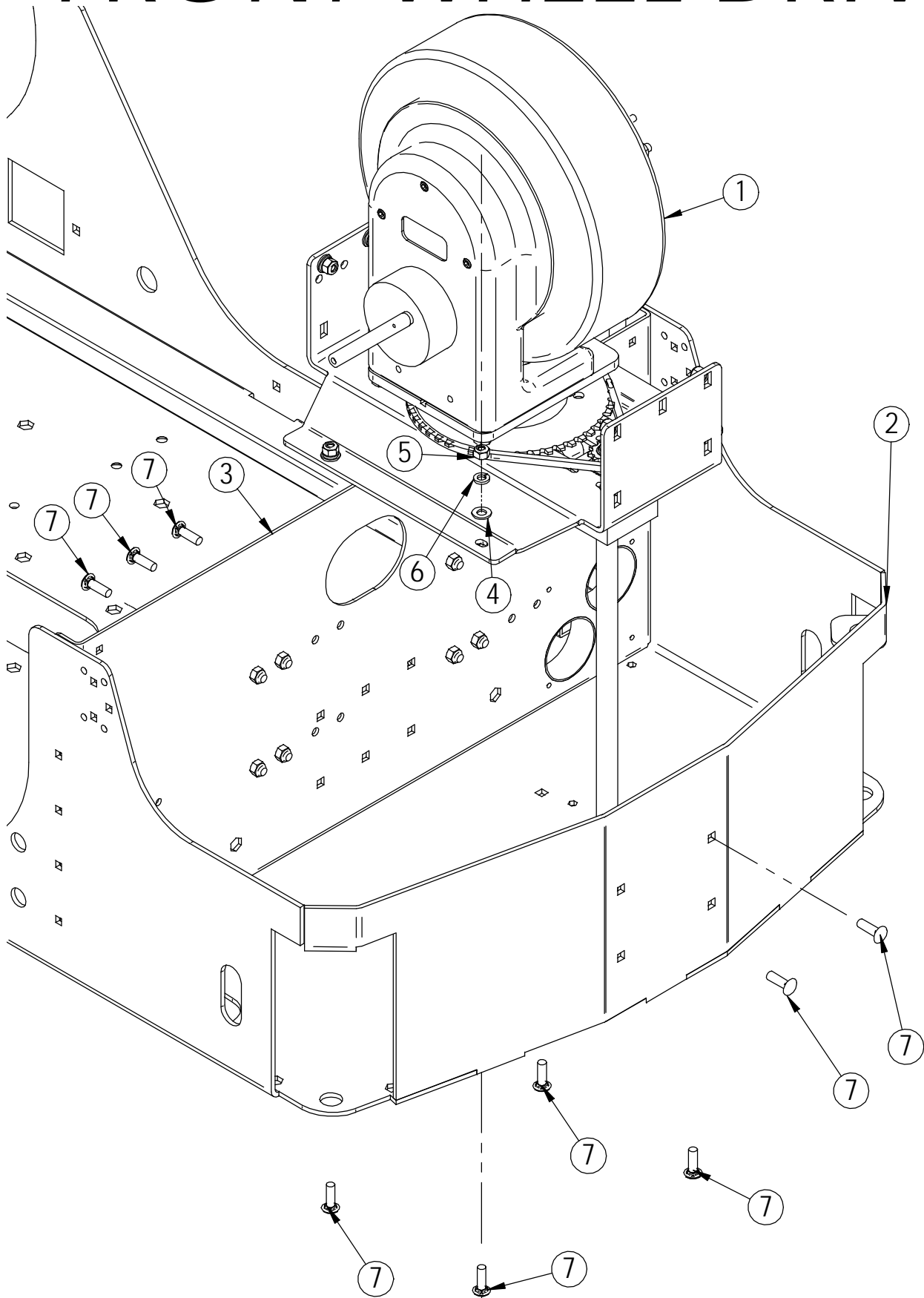
# FRONT WHEEL DRIVE



# FRONT WHEEL DRIVE

Item	Part No.	Part Description	Qty
1	250-7314	60 TOOTH STEERING SPROCKET	1
2	250-7320	12" DROP PLATE	1
3	250-7326	PIVOT PLATE	1
4	250-7327	STEERING CHAIN	1
5	250-7332	STEERING SHAFT	1
6	275-7120	STEERING SHAFT, LOWER	1
7	290-7310	WHEEL DRIVE ASS'Y	1
8	37-7317	TAPERED ROLLER BEARING	2
9	37-7318	BEARING CAP	2
10	37-7319	STEERING SHAFT SEAL	2
11	37-7320	PRE LOAD SLEEVE	1
12	37-7321	SLOTTED NUT, 2.0 - 12	1
13	5-826	10 TOOTH SPROCKET	1
14	5-831	MASTER LINK	1
15	8-723	BEARING BLOCK	1
16	8-723B	BEARING	2
17	H-00270	3/16" X 3/4" KEY	1
18	H-05233	PVC TUBING	1
19	H-13003	HCS 1/4"-20 X 3/4"	2
20	H-13055	HCS 5/16"-18 X 1"	2
21	H-24103	BHSCS 3/8"- 24 X 1"	6
22	H-24617	SHCS, LOW HEAD, 1/4- 20 X 5/8"	2
23	H-25595	SS CP 3/8"- 24 X 1/2"	1
24	H-33618	LW 1/4"	2
25	H-33620	LW 5/16"	2
26	H-36104	HN 5/16"-18	2
27	H-65129	3/16" X 2-1/2" COTTER PIN	1
28	H-68013	SNAPRING 5/8"	1
29	H-70105	HCS 3/8"- 16 X 1" SS	4

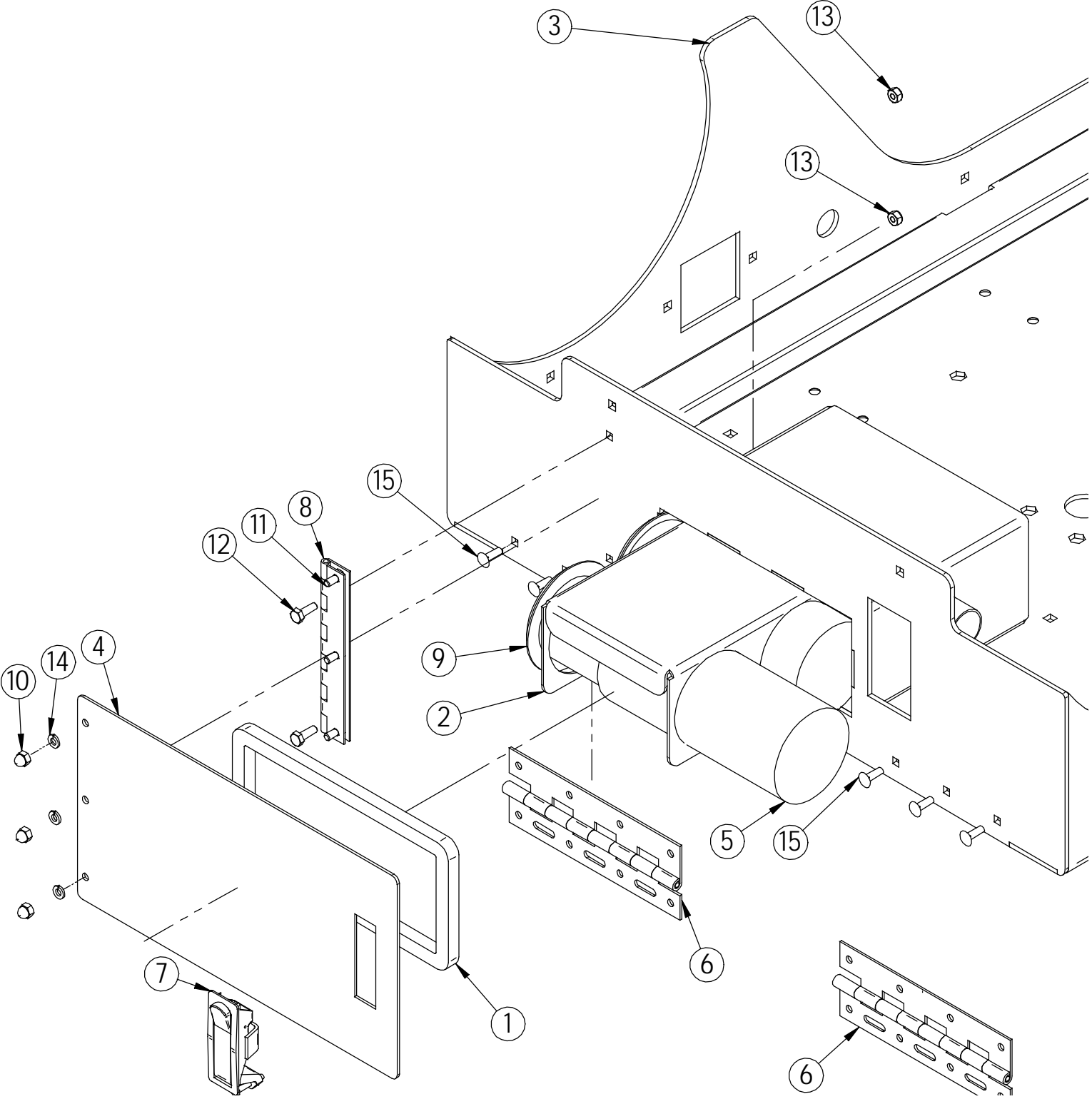
# FRONT WHEEL DRIVE



# FRONT WHEEL DRIVE

Item	Part No.	Part Description	Qty
1	234	SUB #234 250 12 INCH FRONT WHEEL ASSEMBLY	1
2	275-1000	FRAME WELDMENT	1
3	808	SUB #808 275 BURNISHER FRONT PANEL	1
4	H-33080	FW 5/16" SAE	9
5	H-70861	NYLOK 5/16" - 18 SS	9
6	H-71065	LW 5/16" SS	9
7	H-74430	CB 5/16"- 18 X 1" SS	9

# FILTER DOOR & HINGES

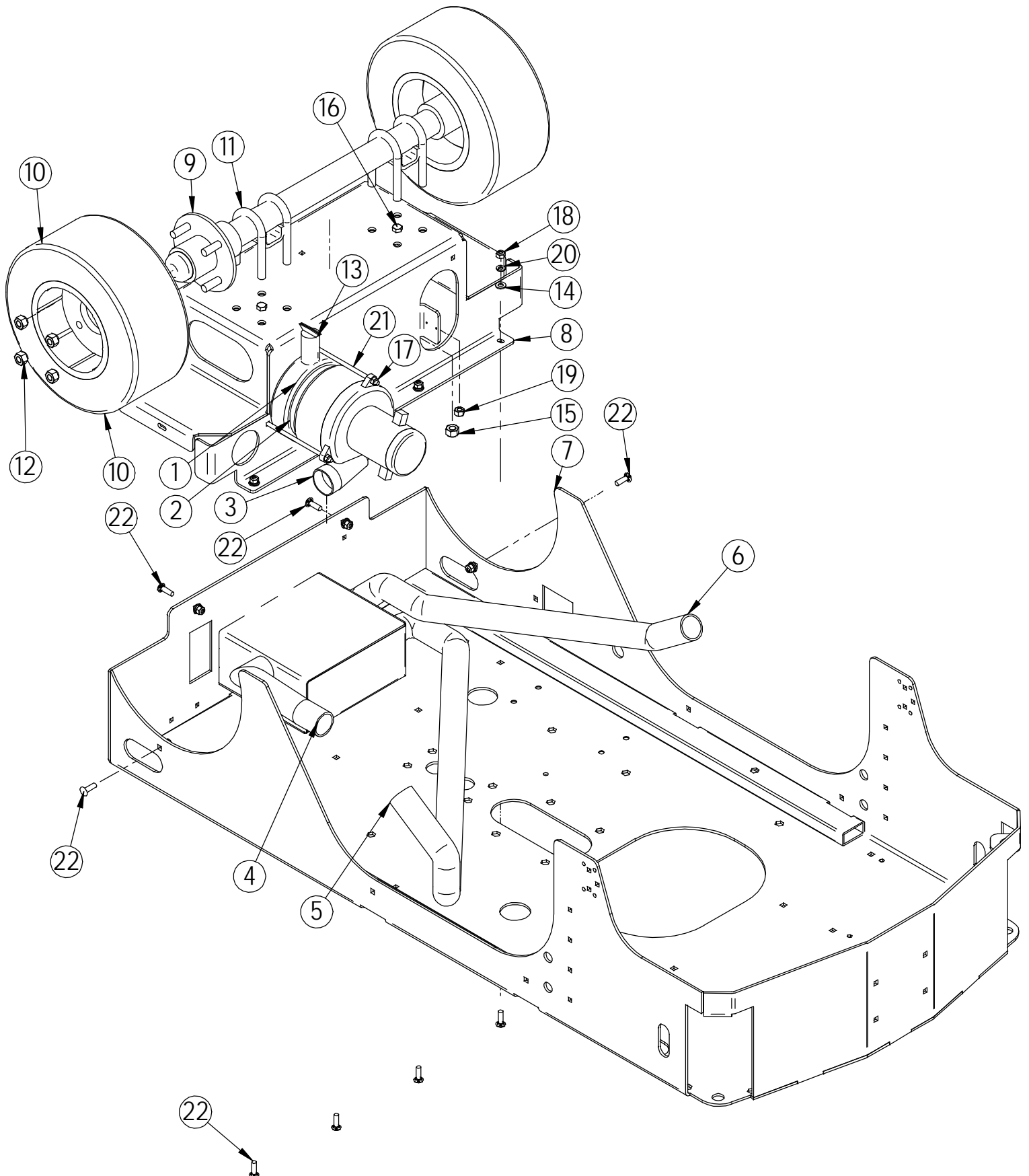


# *FILTER DOOR & HINGES*

Item	Part No.	Part Description	Qty
1	275-0009	FILTER DOOR GASKET	1
2	275-0014	FILTER HOLDER	1
3	275-1000	FRAME WELDMENT	1
4	275-4110	FILTER DOOR	1
5	275-5020	FILTER SOCK	2
6	5-122	HINGE 8" SS	2
7	5-130	DOOR LATCH	1
8	8-180	6-7/8" S/S HINGE	1
9	8-911	SCREEN STRAINER	2
10	H-37708	1/4-20 LC ACORN NUT	3
11	H-70001	HCS 1/4"-20 X 1/2 SS"	3
12	H-70003	HCS 1/4"- 20 X 3/4" SS	2
13	H-70860	NYLOK 1/4"- 20 SS	6
14	H-71063	LW 1/4" SS	3
15	H-74419	CB 1/4"- 20 X .75" SS	5



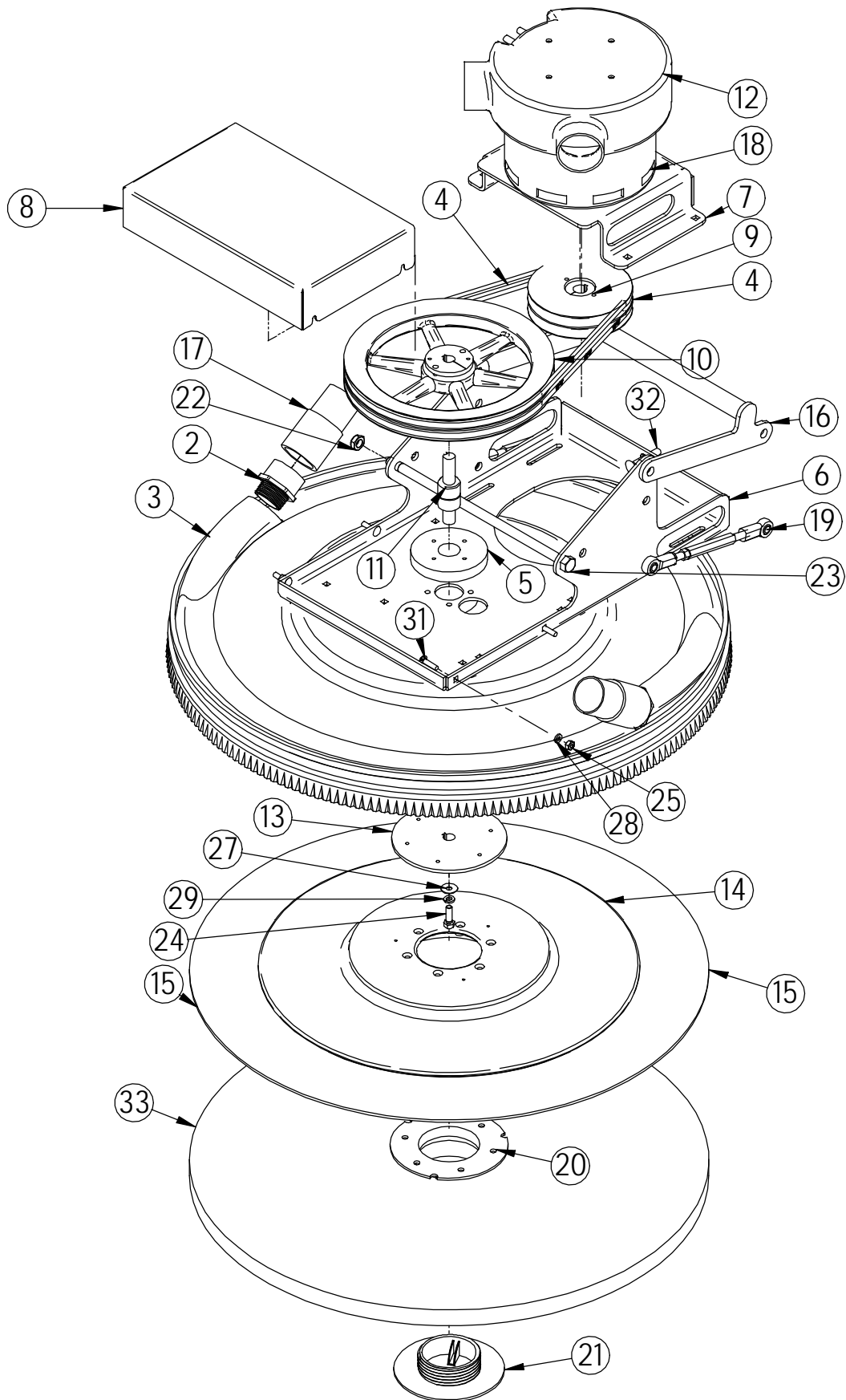
# REAR AXLE MOUNT



# REAR AXLE MOUNT

Item	Part No.	Part Description	Qty
1	190-1450	VAC BOX	1
2	190-3002	VAC MOTOR GASKET	1
3	250-5250	36V VAC MOTOR, TANGENTIAL	1
4	275-0010	1.5" DIA VAC TO FILTER HOSE	1
5	275-0011	1.5" DIA LEFT DECK TO FILTER HOSE	1
6	275-0012	1.5" DIA RIGHT DECK TO FILTER HOSE	1
7	275-1000	FRAME WELDMENT	1
8	275-5000	AXLE MOUNT	1
9	290-6040	REAR AXLE	1
10	290-6181	BLACK SMOOTH REAR WHEEL	2
11	290-6186	1/2-20 X 1-1/4 " U BOLT	4
12	290-6187	LUG NUT, 1/2" - 20	4
13	390-1505	LOADER VALVE	1
14	H-33080	FW 5/16" SAE	8
15	H-37130	NYLOK NUT, 1/2" - 20	8
16	H-70103	HCS 3/8"-16 X 3/4" SS	2
17	H-70860	NYLOK 1/4" - 20 SS	3
18	H-70861	NYLOK 5/16" - 18 SS	8
19	H-70862	NYLOK 3/8"-16 SS	2
20	H-71065	LW 5/16" SS	8
21	H-74400	CB 1/4" - 20 X 6.0" SS	3
22	H-74430	CB 5/16" - 18 X 1" SS	8

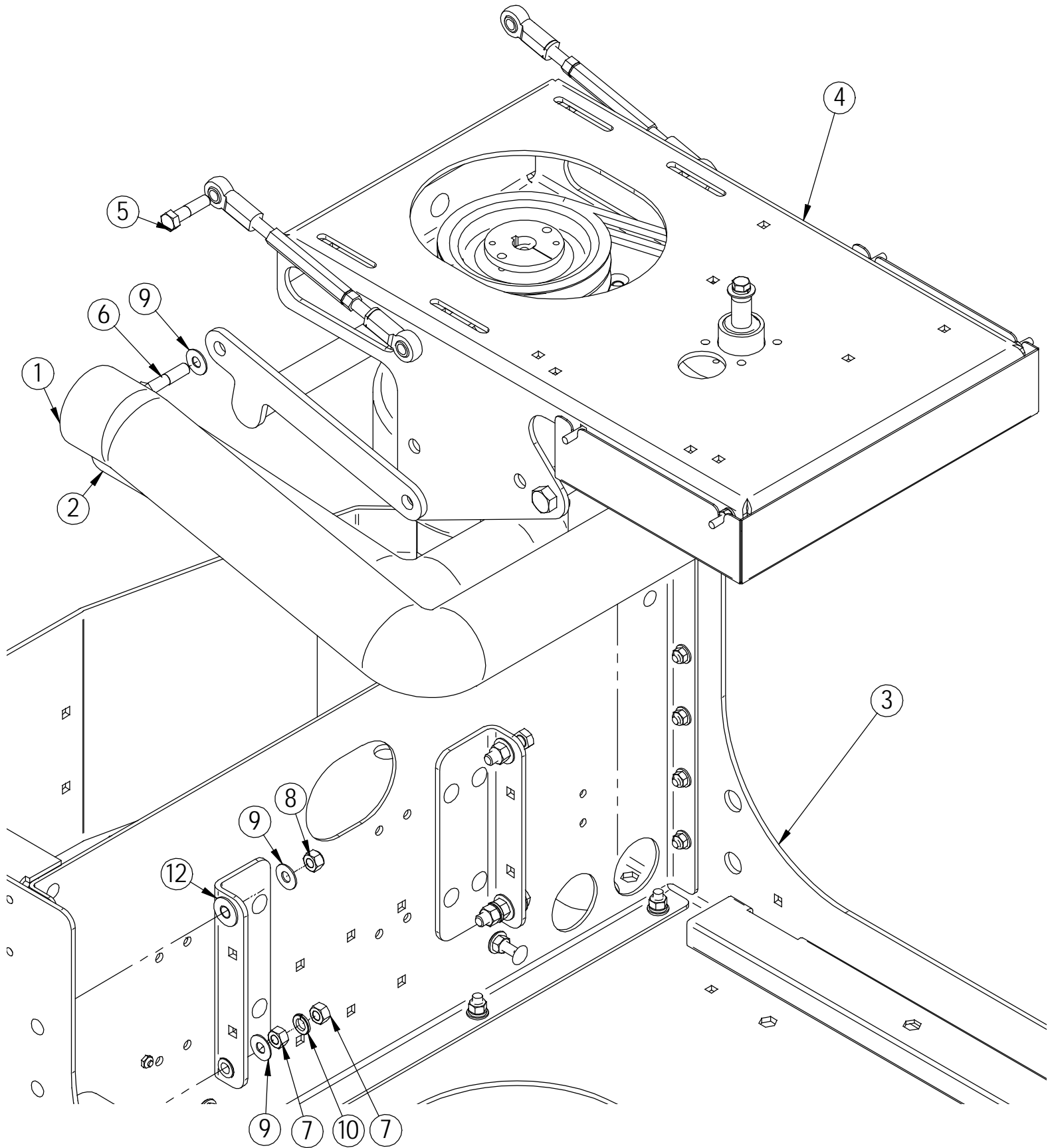
# BURNISHER DECK



# BURNISHER DECK

Item	Part No.	Part Description	Qty
1*	275-0001	27" BURNISHER SHROUD	1
2	275-0004	1-1/4 NPT TO 2" OD ADAPTER	2
3	275-0016	SHROUD CURTAIN	1
4	275-3010	PAD DRIVER BELT	2
5	275-3050	BEARING HOUSING	1
6	275-4020	SINGLE PAD BURNISHER DECK	1
7	275-4021	MOTOR ADJUSTMENT BRACKET	1
8	275-4022	BELT GUARD	1
9	275-8215	DH2550 5.5" PULLEY	1
10	275-8225	11" PULLEY	1
11	275-8240	DRIVE BEARING	1
12	275-9501	MOTOR COVER	1
13	275-9568	PAD DRIVER	1
14	275-9569	DISK RISER	1
15	275-9576	27" DRIVER PLATE	1
16	275-9586	LATERAL LIFTING BRACKET	1
17	290-7212	1-1/2" - 2" HOSE CUFF	2
18	290-9501	BURNISHER MOTOR 36V 2000 RPM 65 AMP	1
19	290-9587	ADJUSTABLE LATERAL ARM	2
20	40-434A	DRIVER LOCK	1
21	40-434B	DRIVER SCREW IN PAD LOCK	1
22	H-0129159	JNYL, 1/2"-13, 18-8 SS	1
23	H-11219	HCS 1/2" - 13 X 7.0"	1
24	H-70055	HCS 5/16" - 18 X 1" SS	1
25	H-70710	HN 1/4" - 20 SS	2
26*	H-70860	NYLOK 1/4" - 20 SS	1
27	H-71016	FW 5/16" X 7/8" SS	1
28	H-71063	LW 1/4" SS	2
29	H-71065	LW 5/16" SS	1
30*	H-72710	FHP 1/4" - 20 X 1" SS	1
31	H-74420	CB 1/4" - 20 X 1.0" SS	4
32	H-74439	CB 3/8" - 16 X 2.0" SS	1
33	SEE COMMON WEAR PARTS	27" BURNISHER PAD	1

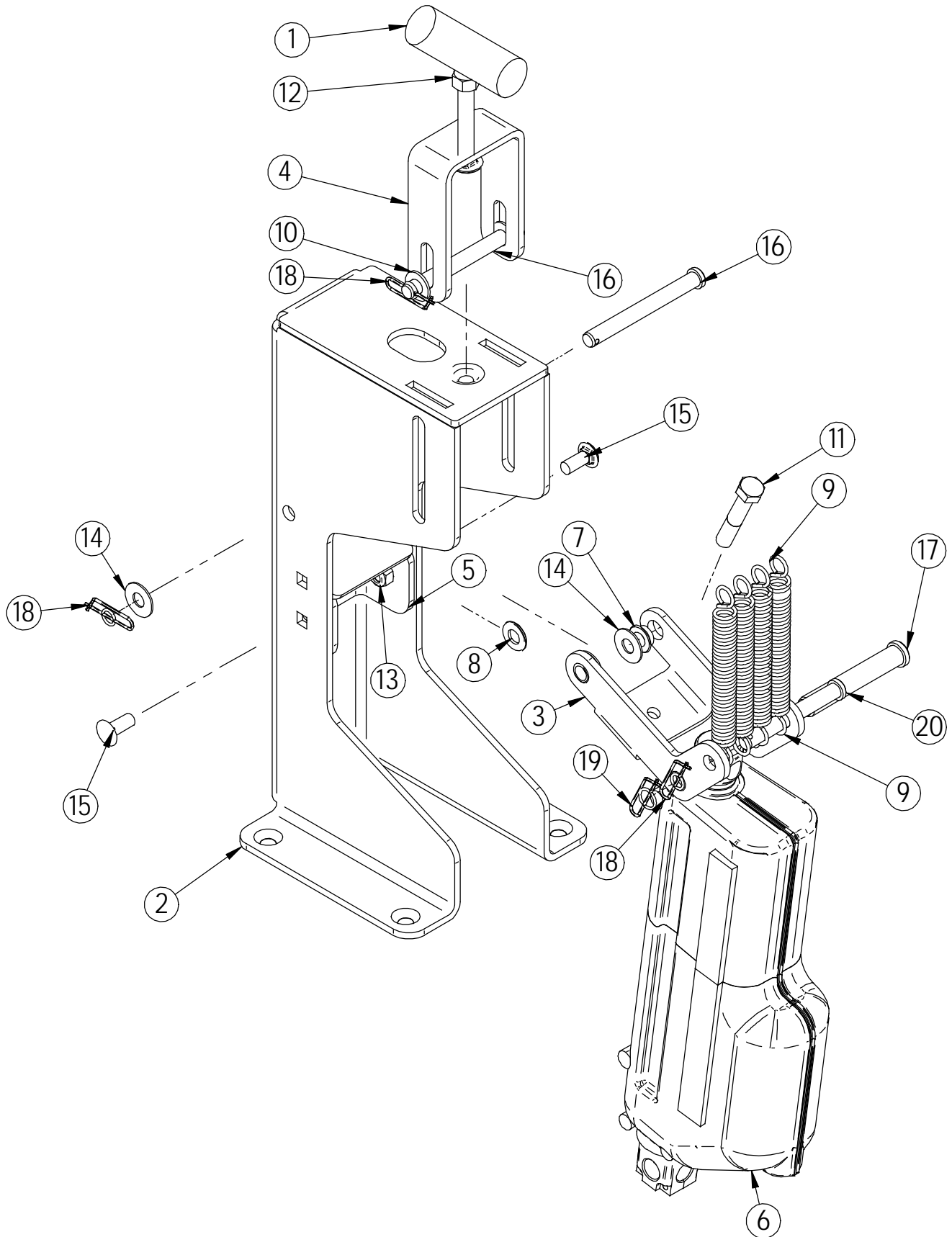
# BURNISHER DECK



# BURNISHER DECK

Item	Part No.	Part Description	Qty
1	275-0017	MOTOR HOSE	1
2	275-0018	MOTOR HOSE	1
3	275-1000	FRAME WELDMENT	1
4	807	SUB #807 275 BURNISHER DECK	1
5	H-70109	HCS 3/8" - 16 X 1-1/2" SS	2
6	H-70110	HCS 3/8" - 16 X 1-3/4" SS	2
7	H-70712	HN 3/8"-16 SS	4
8	H-70862	NYLOK 3/8"-16 SS	2
9	H-71017	FW 3/8" X 7/8" SS	4
10	H-71067	LW 3/8" SS	2
11*	H-73908	FHSCS 5/16" - 18 X 1" SS	4
12	H-99001	FW 3/8" SS	2

# ACTUATOR PIVIOT



# ACTUATOR PIVOT

Item	Part No.	Part Description	Qty
1	275-0999	SPRING ADJUSTMENT KNOB	1
2	275-1081	ACTUATOR UPRIGHT	1
3	275-1082	ACTUATOR PIVOT	1
4	275-1083	ACTUATOR SPRING AJUSTMENT BRACKET	1
5	275-1084	PIVOT ADJUSTMENT BRACKET	1
6	275-2210	6" STROKE 36V ACTUATOR 1000 LB LOAD	1
7	290-1233	3/8" ID, 1/2" OD, 1/4" LG BEARING	2
8	290-1247	FW BRONZE .75 OD X .375 ID X .0625 THK	2
9	390-7712	COMPRESSION SPRING	4
10	H-4440024	FW 3/8" X 3/4" NYLON	2
11	H-70111	HCS 3/8"- 16 X 2" SS	1
12	H-70712	HN 3/8"-16 SS	1
13	H-70861	NYLOK 5/16" - 18 SS	2
14	H-71017	FW 3/8" X 7/8" SS	4
15	H-74429	CB 5/16"- 18 X 3/4" SS	2
16	H-923902	3/8" X 4" CLEVIS PIN	2
17	H-CP238	1/2" X 3" CLEVIS PIN	1
18	H-RUE14	3/8" RUE RING COTTER	3
19	H-RUE22	1/2" RUE RING COTTER	1
20	H-ZCP176	CLEVIS PIN 3/8" x 3.00"	1

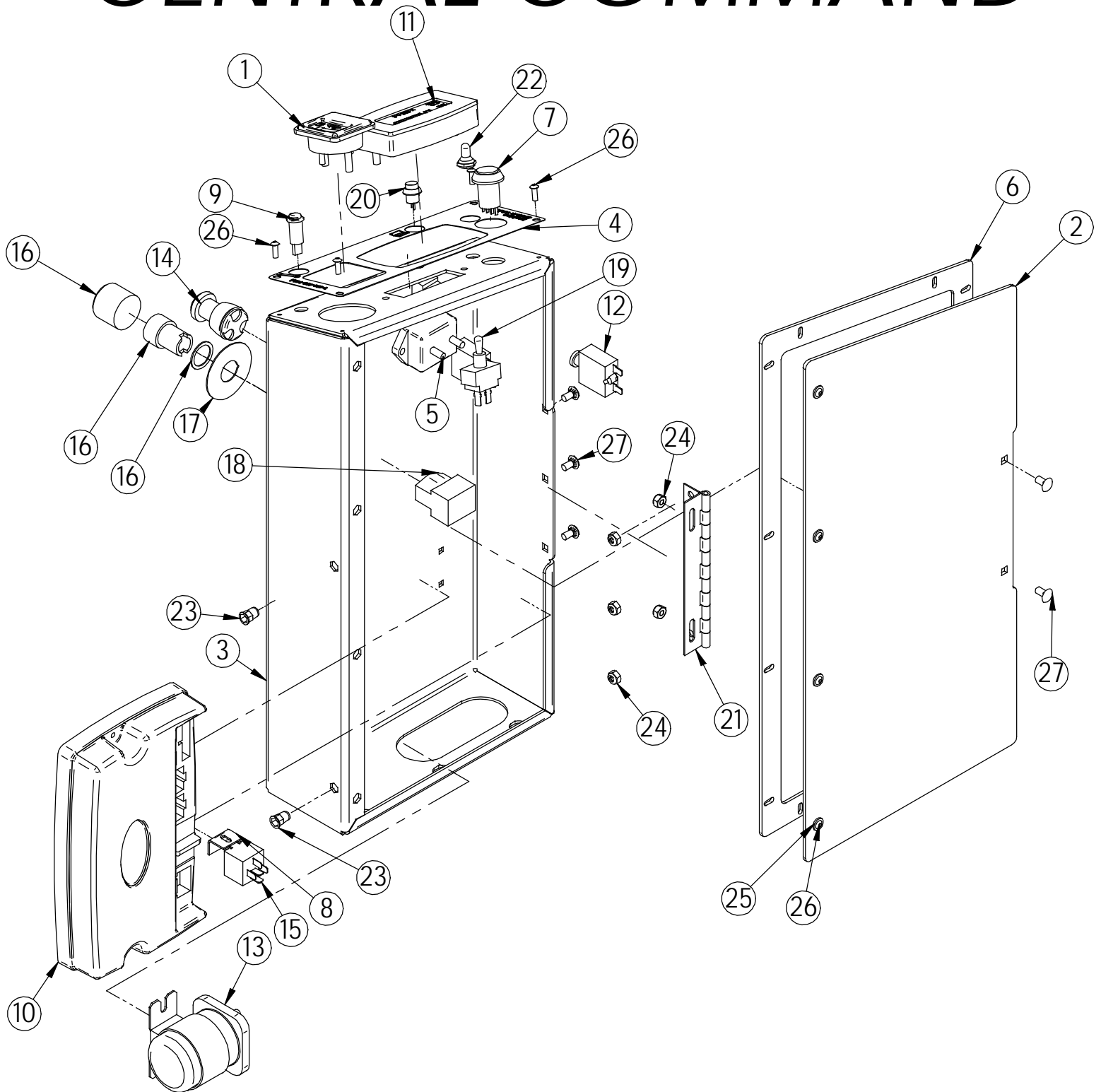




# STEERING UPRIGHT

Item	Part No.	Part Description	Qty.
1	290-1245	3/8" ID, 1/2" OD, 3/8" LG, FLANGE BEARING	2
2	290-1247	BRONZE THRUST BEARING, .50" ID X 1.0" OD X 1/16" TH	2
3	290-1248	FW BRONZE 1/2" ID X 1" OD X 1/8" TH	2
4	290-7050	INDEX PLUNGER	1
5	292-1170	LOWER STEERING TOWER	1
6	292-1171	UPPER STEERING TOWER	1
7	292-1172	COVER	1
8	4-101	SERIAL NUMBER PLATE	1
9	4-260	CONNECTOR, GREY 50	1
10	4-352	BEARING	1
11	4-364A	FLANGE, 1.75" ID	2
12	430-2910	36V HEADLIGHT	1
13	430-2940	36V HORN	1
14	8-262	HOUR METER	1
15	8-292	BACKUP ALARM	1
16	8-294B	PUSH BUTTON SWITCH, SILVER	1
17	H-21253	CB 5/16" - 18 X 3/4"	1
18	H-250HCN	HCN 1/4" -20	12
19	H-28902	RPH #8-32 X 1"	2
20	H-29060	RPH #10-32 X 3/4"	2
21	H-33620	LW 5/16"	3
22	H-36104	HN 5/16"-18	4
23	H-37015	NYLOK #10-32	2
24	H-37024	NYLOK 3/8"-16	2
25	H-37406	KN #8-32	2
26	H-71009	FW #10 SS	4
27	H-71017	FW 3/8" X 7/8" SS	4
28	H-72681	FHP #10-32 X 3/8" SS	2
29	H-73754	BHSCS 1/4 - 20 X 3/4 SS	6
30	H-73815	BHSCS 3/8"- 16 X 1" SS	2
31	H-76061	FW 1/4" NYLON	6
32	H-94071	BHSCS 5/16-18 X 1	3

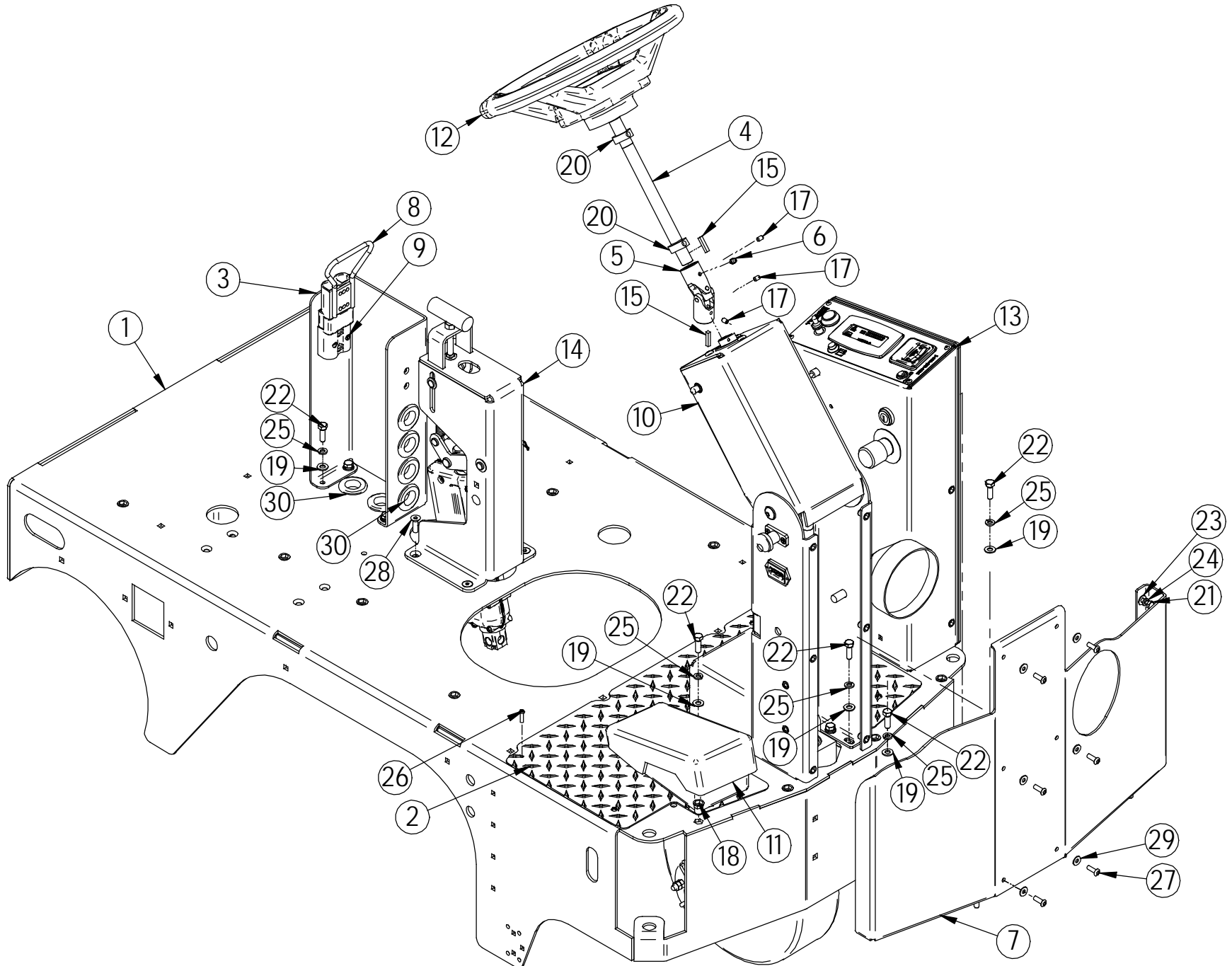
# CENTRAL COMMAND



# CENTRAL COMMAND

Item	Part No.	Part Description	Qty.
1	275-0013	0 TO 100 AMP GAUGE	1
2	275-2001	ACCESS COVER	1
3	275-2010	CONTROL PANEL	1
4	275-2013	CONTROL PANEL TOP PLATE	1
5	275-8000	80 AMP BREAKER	1
6	290-2004	ACCESS COVER GASKET	1
7	290-2015	ONE TOUCH BUTTON	1
8	290-2020	BRACKET	1
9	290-2300	LOW SOLUTION (AMBER)	1
10	290-2890	COMPUTER CONTROL V2	1
11	290-2891	LCD SCREEN	1
12	290-8370	FUSE, RESETTABLE, 50 AMP, 50V DC MAX	2
13	390-2331	36V 200 AMP RELAY	1
14	4-234	KEY SWITCH	1
15	5-293	15 AMP RELAY	1
16	5-300	EMERGENCY SHUT OFF	1
17	5-301	EMERGENCY LEGEND PLATE	1
18	5-302	EMERGENCY CONTACT BLACK	1
19	5-892	TOGGLE, ON-OFF SPST	2
20	7-229	PUSH BUTTON SWITCH	1
21	8-180	HINGE, 6-7/8" S/S	1
22	H-01196	PROTECTIVE BOOT, TOGGLE SWITCH, (RED)	1
23	H-250HCN	HCN 1/4"-20	2
24	H-70860	NYLOK 1/4"- 20 SS	5
25	H-71009	FW #10 SS	4
26	H-73743	BHSCS 10-32 X 1/2" SS	8
27	H-74417	CB 1/4"- 20 X .5" SS	5

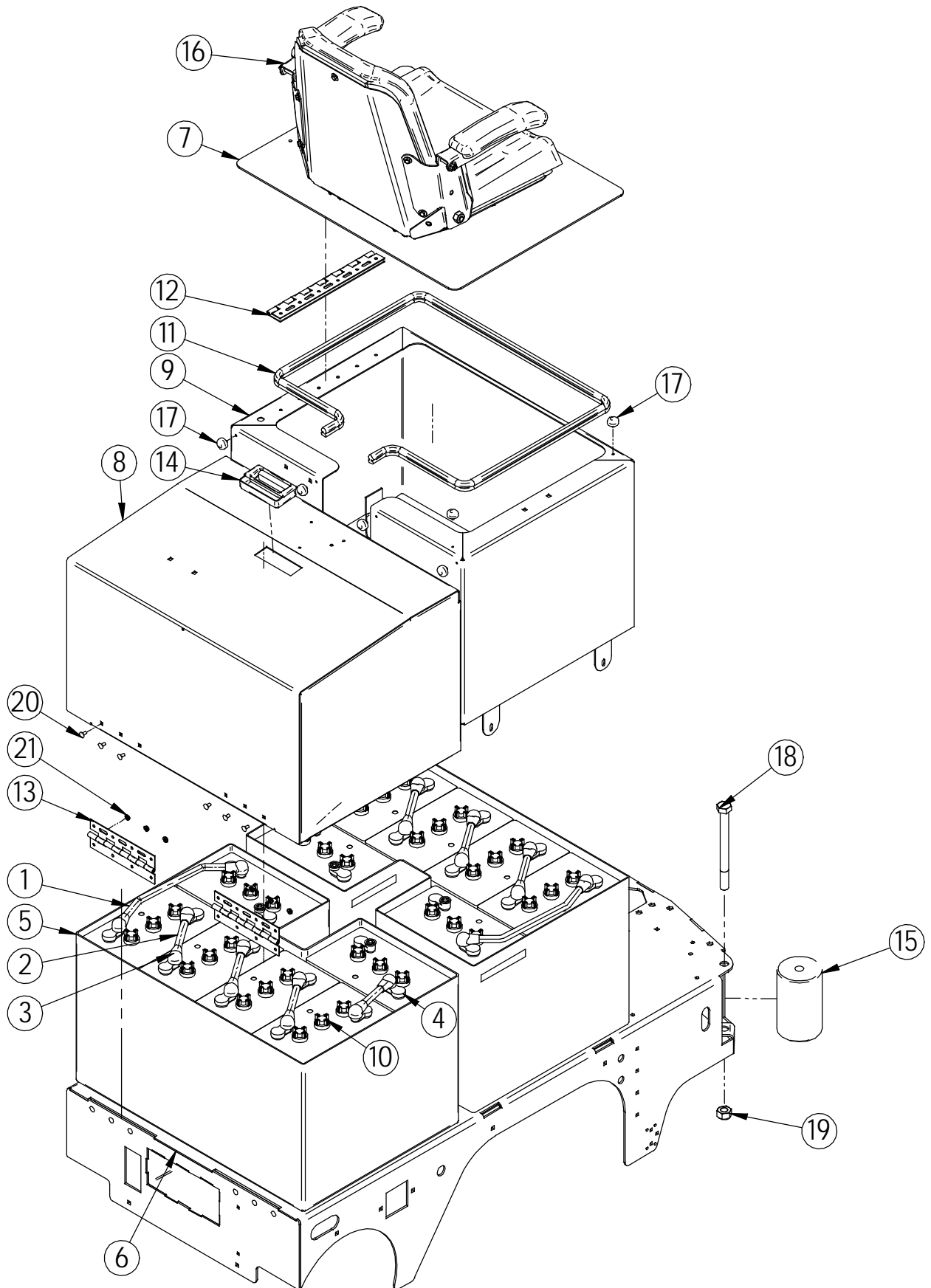
# MACHINE TOP COMPONENTS



# MACHINE TOP COMPONENTS

Item	Part No.	Part Description	Qty
1	275-1000	FRAME WELDMENT	1
2	275-1610	NON SKID FLOOR PLATE	1
3	275-9515	HOOD STRAP UPRIGHT	1
4	290-7090	STEERING SHAFT, UPPER	1
5	290-7110	U-JOINT	1
6	290-7111	1/4-28 ZERK FITTING	1
7	292-1180	FRONT APRON	1
8	390-2572	CONNECTOR HANDLE	1
9	390-2575	175 GREY CONNECTOR WITH I/O CONTACTS	2
10	481	SUB #481 36 VOLT STEERING UPRIGHT	1
11	5-275	FOOT PEDAL	1
12	8-703	STEERING WHEEL	1
13	809	SUB #809 275 BURNISHER CCM II	1
14	811	SUB #811 275 BURNISHER ACTUATOR PIVOT	1
15	H-01125	3/16" X 1" KEY	2
16*	H-02309	HCN #10-32, LG CRIMP	5
17	H-25328	SSS CP 1/4"-20 X 3/8"	3
18	H-312HCN	HCN 5/16"-18	31
19	H-33080	FW 5/16" SAE	17
20	H-33376	SET SCREW SHAFT COLLAR, 3/4" ID X 9/16 LG	2
21	H-70005	HCS 1/4"- 20 X 1" SS	2
22	H-70055	HCS 5/16"- 18 X 1" SS	17
23*	H-71013	FNW 1/4" X 5/8" SS	2
24	H-71063	LW 1/4" SS	1
25	H-71065	LW 5/16" SS	17
26	H-72565	RPH #10-32 X 3/4" SS	4
27	H-73754	BHSCS 1/4 - 20 X 3/4 SS	6
28	H-73908	FHSCS 5/16"- 18 X 1" SS	4
29	H-76061	FW 1/4" NYLON	6
30	H-9307K74	GROMMET, 1" ID X 1-3/4" OD BUNA-N	6

# BATTERIES AND COVERS



# ACTUATOR PIVIOT

Item	Part No.	Part Description	Qty
1		BATTERY JUMPER (4 GAUGE 24-1/2" LG)	2
2		BATTERY JUMPER (4 GAUGE 5-1/2" LG)	8
3	190-2110	BATTERY BOOT	20
4	250-2110	TERMINAL COVER	24
5	275-0000	BATTERY BOX	2
6	275-1000	FRAME WELDMENT	1
7	275-1305	SEAT LID	1
8	275-9512	HOOD	1
9	275-9518	BATTERY BOX SEAT	1
10	290-2110	L 16 H BATTERY 6 VOLT 395 AH	12
11	390-4101	PUSH-ON RUBBER GASKET 78" LG	1
12	430-1225	13" SS HINGE	1
13	5-122	HINGE 8" SS	2
14	5-849	RECESSED HANDLE	1
15	7-125A	ROLLER	1
16	8-143	SEAT WITH ARM RESTS	1
17	H-01201	GROMMET	6
18	H-11380	HCS 3/4-10 X 8-1/2	2
19	H-37039	NYLOK 3/4"- 10	2
20	H-74417	CB 1/4"- 20 X .5" SS	6
21	H-NJ04C	JNYL 1/4" - 20 SS	6