Minuteman®

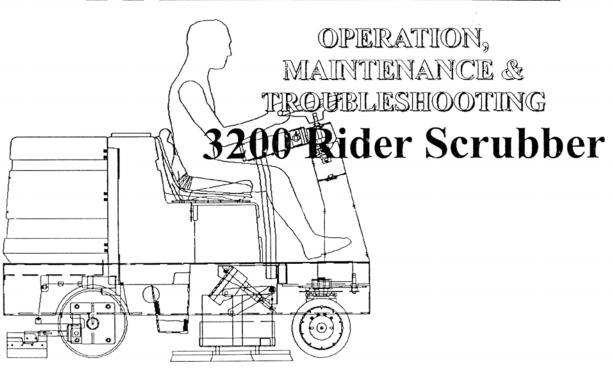


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machine. This infore For your convenience.	erial Numbers of your representation is needed who ence, use the space below the it was placed into serial needs are in the need	en contacting T ow to record the	echnical Supp	port or order	ing parts.
MODEL NUMB	ER:				
SERIAL NUMB	ER:				
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3200 Rider Scrubber (LIMITED) PRODUCT WARRANTY

Minuteman International, Inc. (hereafter known as Minuteman) warrants that the Minuteman 3200 Rider Scrubber will be free from defects in material and workmanship for a period of 24 months or 1,200 operating hours from date of installation, whichever comes first. Written notice of any claimed defect must be given to Minuteman within the warranty period and within thirty (30) days after such defect is discovered. Liability under this warranty is limited to either replacing or repairing, at Minuteman's election, any part or parts deemed defective after examination by Minuteman or an Authorized Service Representative. The Minuteman machine or any of its parts returned by customer to Minuteman or an Authorized Service Representative via prepaid transportation and which is found to be defective, will be repaired or replaced and returned to customer via prepaid surface transportation within the Continental US. On the other hand, should a part be found not defective, inspection and handling charges may be charged to the customer by Minuteman or an Authorized Service Representative.

For one hundred eighty (180) days from date of installation, Minuteman will provide repair labor, at no charge, solely through an Authorized Service Representative. Thereafter, labor will be charged.

This warranty does not extend to the Minuteman machine, or its parts, that have been subject to misuse, accident or improper handling, installation, maintenance or application, nor does it extend to Minuteman machine and/or parts which have been repaired or altered outside Minuteman's plant or the facility of Authorized Service Representative.

This warranty does not apply to routine wearable parts of the Minuteman machine such as brushes, flaps, filters, seals, hoses or similar items. Moreover, this warranty does not extend to the Minuteman machine or part replaced or repaired under this warranty.

Only replacement parts supplied by Minuteman are warranted for 30 days after installation.

The warranty for optional engines shall be limited to the warranty extended to Minuteman by the supplier.

THE WARRANTY SET FORTH HEREIN IS IN LIEU OF AND EXCLUDES ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND CUSTOMER WAIVES ANY OBLIGATION OR LIABILITY OF MINUTEMAN ARISING IN TORT OR STRICT LIABILITY IN TORT, OR FOR LOSS OR USE, REVENUE OR PROFIT WITH RESPECT TO MINUTEMAN MACHINE AND/OR PARTS FOR ANY LIABILITY OF CUSTOMER TO ANY THIRD PARTY, OR FOR OTHER DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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Vinuteman Operation, Maintenance and Troubleshooting

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SAFETY SYMBOLS

Five symbols are used throughout this manual to emphasize various levels of safety information. These symbols and the meaning of each are listed below.

DANGER

DANGER: To warn of immediate hazards which will result in severe personal injury or death

WARNING

WARNING: To warn of hazards or unsafe practices which could result in severe personal injury or death.

CAUTION

CATUION: To warn of hazards or unsafe practices which could result in minor personal injury.

ATTENTION!

ATTENTION!: To warn of practices which could result in extensive equipment damage.

NOTE

NOTE: To direct your attention to important equipment information or special instructions for preventing damage to equipment

Symbols at the top of the list are the strongest warnings. However, all symbols represent important information which should be observed to protect you and others from harm and injury, and to prevent damage to the equipment.

BASIC Minuteman® SAFETY

This Minuteman® 3200 Rider Scrubber should never be operated unless: 1. The operator is trained and authorized to operate the equipment and, 2. The equipment is free of malfuntions. Malfunctioning equipment should be removed from service.

DANGER

- 1. Charging Batteries generates explosive gases. DO NOT CHARGE BATTERIES WHEN OPEN FLAMES OR SPARKS ARE PRESENT. DO NOT SMOKE. Make sure the charger is turned off before disconnecting it from the machine. Charge the batteries in a well ventilated area with the battery cover removed completely.
- Electrical motors and components can cause an explosion when operated near explosive materials or vapors.
 Do not operate this machine near flammable materials such as solvents, thinners, fuels, grain dust, and etc..

WARNING

- 1. Before operating the machine, make sure that:
 - * All covers and doors are closed.
 - * You are securely seated in the operator's seat.
 - * The parking brake is locked.
 - * The directional control pedal is in neutral.

2. During operation:

- * Keep your hands and body clear of moving parts.
- Make sure others in the area stay clear of the equipment and moving parts.
- * Loose objects on the floor can become dangerous projectiles if struck by the high-speed pad. Special attention should be paid in removing or avoiding loose floor tile, electrical cables, telephone connectino boxes, and etc..
- * These machines are designed for level floor operation only. DO NOT OPERATE ON RAMPS OR INCLINES.
- This machine is not suitable for picking up hazardous dust.

BASIC Minuteman® SAFETY (Continued)

- 3. During cleaning and maintenance:
 - Maintenance and repairs must be performed by authorized personnel.
 - * Make sure the red Emergency Disconnect Button is pressed and the battery connector is unplugged from the machine before performing any service or maintenance procedures.
 - * Disconnect the power to the machine by disconnecting the battery connector located at the batteries when charging the batteries or during installation or removal of pads.
 - * Do not clean this machine with a pressure washer.
 - * Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of the batteries.
 - * Use caution when moving this machine into areas that are below freezing. Any water in the tanks or hoses can cause damage.
 - * Store or park this machine on a level surface only, with the parking brake engaged. To prevent unauthorized use, this machine should be stored with the key removed.

BASIC OPERATING CONTROLS

INSPECTION Carefully unpack and inspect your 3200 Rider Scrubber for ship-

ping damage. Each unit is tested and thoroughly inspected before shipment; any damage is the responsibility of the delivery carrier

who should be notified immediately.

ELECTRICAL This machine is battery operated and designed to operate on ei-

ther: six (6) 36-volt DC 6-volt OR three (3) 12-volt batteries.

BATTERIES The recommended batteries are either: six (6) 370Ah 6-volt

(Minuteman P/N 956715) OR three (3) 210Ah 12-volt

(Minuteman P/N 956210) batteries, depending on how the ma-

chine is factory equipped.

OPERATION Before starting, familiarize yourself with the machine and its

controls.

CONTROL PANEL

KEY SWITCH

"I" Turns power to the machine ON. "O" Turns power to the machine OFF.

SCRUB SWITCH

This switch turns the scrub motors **ON / OFF**. The Scrub Switch must be **ON** to operate scrub down pressure.

SCRUB PRESSURE SWITCH This switch controls the amount of pressure applied to the floor when scrubbing.

NOTE

There are three pre-set positions on this switch: Low, Medium and High. The onboard computer that controls this function automatically adjusts itself to allow for brush wear.

SQUEEGEE / VACUUM SWITCH This switch turns on the vacuum motor and directs power to the squeegee actuator. The squeegee will automatically lower when the machine moves forward and will raise in reverse. When power is turned **OFF**, the squeegee will raise to the **NORMAL** position and the vacuum motor will continue to run for 30 seconds before turning itself **OFF**.

EMERGENCY DISCONNECT When the large red button is pressed, the batteries will be electrically isolated from the rest of the machine. Use this button in case of a machine emergency. The same red button is twisted and raised in order to operate the machine.

HORN

Depressing the horn button will activate the horn.

HOUR METER / BATTERY FUEL GAUGE

This meter has two functions:

- 1. It tells the operator the number of hours that the machine has been operated and
- 2. It indicates the state of charge on the batteries. The hour meter will track time whenever the machine moves. This information is useful for maintenance purposes.

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CONTROL PANEL (CONTINUED)

HOUR METER / BATTERY FUEL GAUGE (CONTINUED) The battery fuel gauge shows the actual amount of charge left in the batteries. When the battery is completely charged, the green light segment all the way to the right will be illuminated. As the battery begins to discharge, the light segment what is illuminated will slowly move to the left. When the battery gets below half charge, the light segment that is illuminated will be yellow in color. When the battery gets to be significantly discharged, the light segment will be red in color and flash.

When the fuel gauge is yellow, the operator should begin to prepare to recharge. When the fuel gauge is red, the battery is dangerously low and needs to be recharged IMMEDIATELY.

NOTE

Permanent battery damage can happen from a deep discharge.

CIRCUIT BREAKER PANEL The circuit breaker panel, located on the steering pod, contains the circuit breakers for the entire machine. The following circuits are protected:

- 1. Vacuum Motors (50 amp)
- 2. Brush Motors (70 amp)
- 3. Drive Motor (50 amp)
- 4. Control Circuits (18 amp)

OPERATION CONTROLS

ACCELERATOR / DIRECTIONAL CONTROL PEDAL Located on the right side of the operator compartment on the floor is the accelerator / directional control pedal. When the right side of the pedal is pressed, the machine will move forward. The further the pedal is pressed the faster the machine will move. When the left side of the pedal is pressed, the machine will move backwards. The further the pedal is pressed, the faster the machine will move backwards. The accelerator pedal is interlocked with a seat switch, making machine propulsion not possible without the operator sitting on the seat.

STEERING WHEEL

The steering wheel is adjustable for operator comfort by pulling the adjustment pin out and raising the wheel up or down. There are three possible positions.

SERVICING / MAINTENANCE

BATTERY RECHARGING

Open the doors at the rear of the machine. Disconnect the batteries from the machine by unplugging the Anderson Connector (gray). Connect the batteries cord to the charger.

NOTE

The charger must be 36 V DC output with a gray 175 Anderson Connector.

Recommended Chargers:

- For 3-12 Volt batteries: Minuteman P/N 957727 36V 20A, 115V 60Mz automatic
- * For 6 6 Volt batteries: Minuteman P/N 957740 36V 40A, 115V automatic

The solution flow valve is opened by raising the actuator to the UP position and closed by returning it to the DOWN position. Solution flow can be set anywhere between the OPEN (UP) and DOWN (CLOSED) position.

OFF-AISLE CLEANING ATTACHMENT (OPTIONAL)

One side of the recovery hose should be inserted into the recovery tank intake port and the other into the wand. The high-pressure solution hose should be connected into the high-pressure hose on the wand and to the high-pressure attachment port on the back of the machine.

To energize the system, press the switch adjacent to the highpressure attachment port on the back of the machine. This will turn the pump **ON** to full pressure and turn **ON** the vacuum system. To dispense the solution, squeeze the trigger, which will dispense the cleaning solution from the spray jet on the nozzle onto the floor. Use the scrub brush on the nozzle to scrub the solution into the floor and break down the dirt. Then turn the nozzle over to the squeegee side and vacuum the dirty solution into the recovery tank.

To turn the system OFF, press the switch adjacent to the high-pressure attachment port.

SERVICING / MAINTENANCE (CONTINUED)

SOLUTION TANK

The solution tank is located on the right side of the machine. To fill, remove the top lid, add clean water and cleaning chemicals. To drain the solution, open the valve beside the drain hose underneath the machine.

RECOVERY TANK

The recovery tank is located on the left side of the machine. Dirty water is vacuumed through the squeegee and into the tank. As the dirty water level approaches the upper limit, a float switch will be activated and the vacuum motor will automatically turn off. To drain the tank, move to the right side of the machine and pull the drain hose through the frame and remove the plug. If the recovery tank has a lot of sediment that need to be removed, remove the plug from the front/bottom of the recovery tank and rinse the tank with water. Do not over tighten the drain plug when reinstalling. The threads inside the tank can be damaged.

SQUEEGEE ADJUSTMENT

The squeegee set-up is pre-adjusted at the factory. Adjustments may be required to get optimum performance for different floor types and conditions.

Pitch Control Adjustment:

- 1. Ensure that the scrubber is on a relatively flat surface. Turn on the main power switch and select "Vacuum Only" mode.
- 2. Move the scrubber forward slowly while someone behind the machine checks the squeegee blade for uniform deflection.
- 3. If uneven deflection or lay is evident, minor adjustments may be necessary to avoid streaking and uneven wear on the blade.

To correct this, pitch adjustment is necessary.

- 1. Loosen the pivot screw and the pitch screw.
- 2. Move the machine forward and allow the squeegee to level itself or adjust the angular position accordingly to achieve a uniform blade deflection.
- 3. Re-tighten the screws.

In certain applications where a different blade setup is required, the reinforcement blade may be turned upside-down. The notch, which is normally on the bottom, will now be located on the top. This adjustment allows the rear squeegee blade a larger deflection than normal.

SERVICING / MAINTENANCE (CONTINUED)

AFTER USE

Turn the machine off by switching the key to the "O" (OFF) position on the control panel. The machine can be cleaned with a mild detergent and a damp cloth. Batteries should be charged after each use or when the battery condition meter shows a low charge. The procedure to recharge the batteries can be found on page X. Once the meter on the battery charger reads 0 amps, the batteries are recharged. This should take approximately 6 to 8 hours if the batteries are completely discharged.

WARNING

BATTERY SERVICE AND INSTALLATION.

Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glassed. Remove metal jewelry. Do not lay tools or metal objects on top of the batteries.

CHARGING OF BATTERIES

Charging batteries generates explosive gasses. DO NOT CHARGE BATTERIES WHEN OPEN FLAMES OR SPARKS ARE PRESENT. DO NOT SMOKE Make sure the charger is turned off before disconnecting it from the batteries. Charge the batteries in a well-ventilated area. Fluid levels should be checked before and after charging and maintained at the proper levels. If low, add water until the metal plates are covered. If the machine is not used for extended periods of time, batteries should be kept full charged with a boost charge once a week.

CARBON BRUSH REPLACEMENT

The design life of carbon brushes is between 1800 and 2000 hours. Replace brushes is worn to 3/8" or less, broken or chipped. All carbon brushes should be replaced when the motor is serviced.



Your Page

Thank you for your purchase of the now industry standard for sweepers. Minuteman* takes great pride in offering the most dependable, reliable and value in industrial / commercial power sweepers and sweeper / scrubbers. We set the standard.

Our Publishing Department, International would like to hear from you. If you see any errors, omissions or something that just needs clarification in this manual and/or the parts section, please let us know. We are working hard toward perfection in our little corner of the process of bringing you the best you can buy. Please fill out the form below and comment on how you found our manuals.

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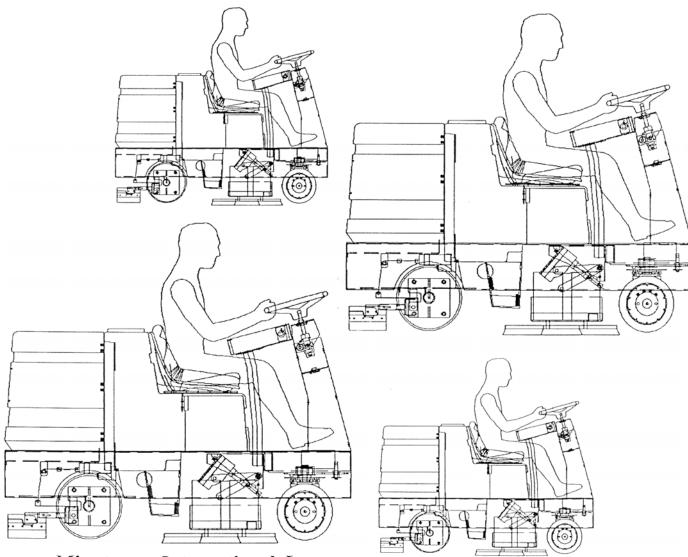


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Parts Section 3200 Rider Scrubber

3200 Rider Scrubber



Minuteman International, Inc.

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PARTS SECTION

3200 Rider Scrubber

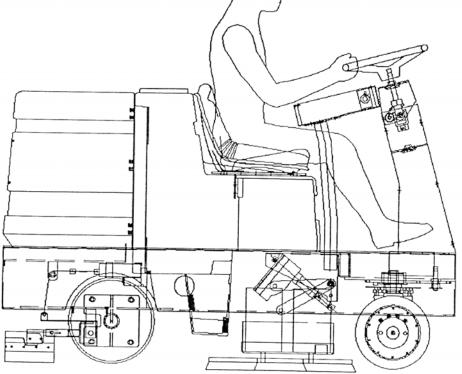
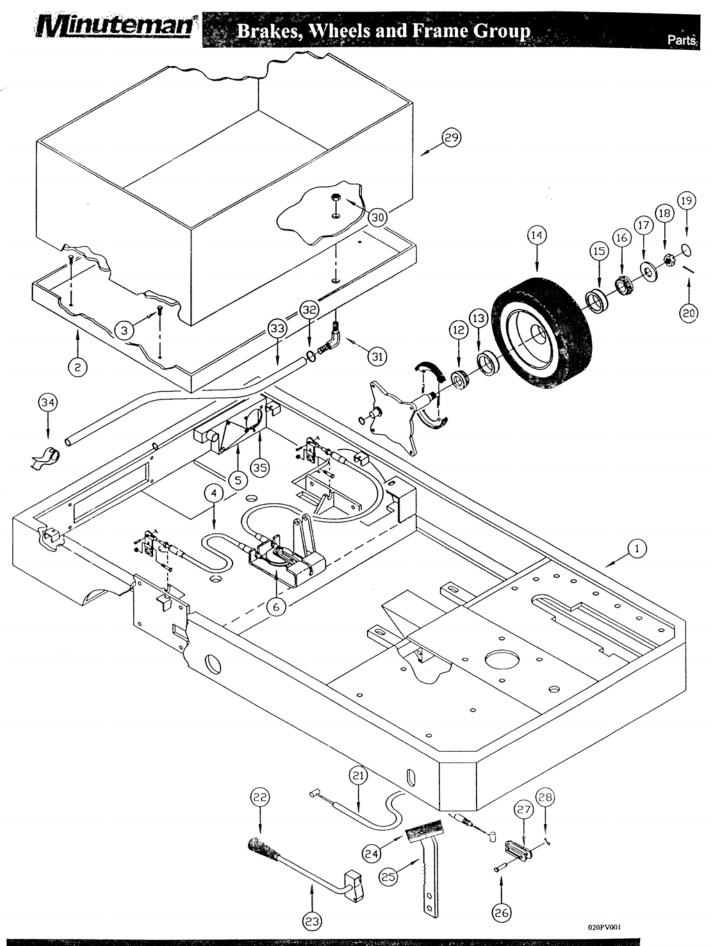


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Squeegee Assembly
Piping Schematic
Electrical Schematic
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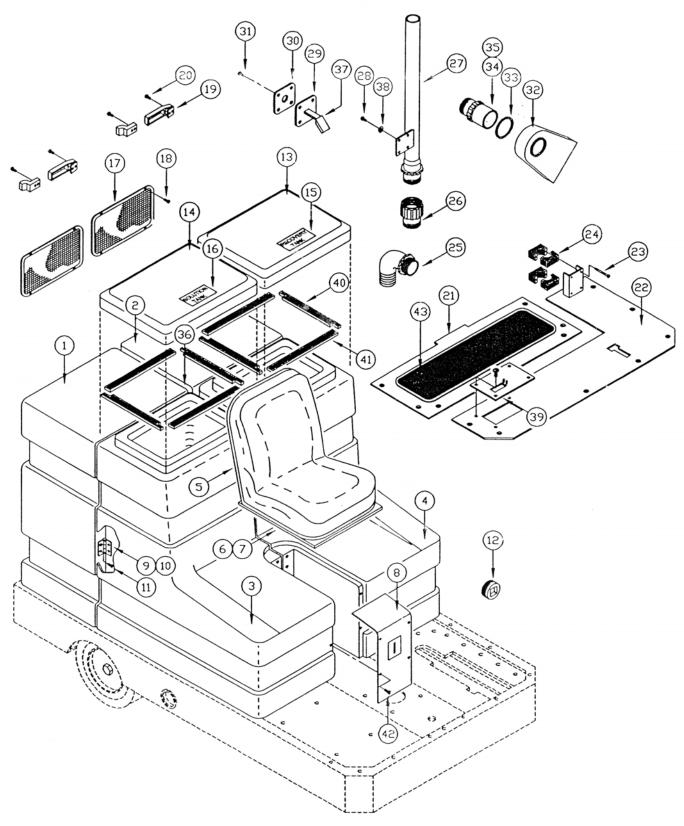
Brakes, Wheels and Frame Group

Par

REF#	PART #	DESCRIPTION	QTY
1	3337100	WELD-MAIN FRAME 3200	1
2	3337131	WELD-BATTERY TRAY 3200	1
3	3400035	SCR-HEX,5/16-18X1.00 ZP	
4	383229	BRAKE CABLE	1
5	3308386	PLT-VAC MOTOR COVER	1
6	81-44-A	NYLON PULLEY	1
7	-	line not used	-
8	-	line not used	-
9	-	line not used	-
10	-	line not used	-
11	-	line not used	-
12	383194	TAPERED BEARING CONE	4
13	383195	TAPERED BEARING CUP	4
14	383111	REAR WHEEL	2
15	383195	TAPERED BEARING CUP	4
16	383194	TAPERED BEARING CONE	4
17	711514	WSR-FLAT 1.06 X 2 X .15	2
18	711450	NUT, SLOTTED 1-14 UNS-2A	2
19	383241	GREASE CAP WHEEL	2
20	380-632-20	COTTER PIN	2
21	383230	BRAKE PEDAL CABLE	1
22	760592	KNOB OVAL TAPERED	1
23	383067	EMERGENCY BRAKE WELD'T	I
24	762294MCH	PEDAL	1
25	383064	BRAKE PEDAL	1
26	711668	CLEVIS PIN 3/8X1"11-141	1
27	383230	BRAKE PEDAL CABLE	1
28	711808	COTTER PIN-HAIR #13	1
29	320215	BATTERY LINER 320	1
30	320272	NOZZLE BODY LOCKNUT	1
31	320271	FITTING PP 90 3/8MPT 3/8HOSE	1
32	450076	CRIMP CLAMP SS 185R	1
33	260224	DRAIN HOSE 1/2X18 SILICNHOSE	1
34	320273	HOSE SHUT-OFF CLAMP	1
35	3308200	MOTOR-FAN VACUUM 36 V	1

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Body Group (Tanks & Battery Cover Doors)

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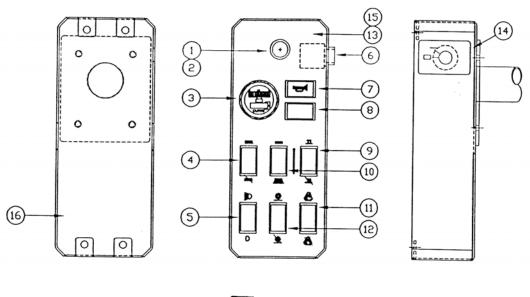
REF#	PART #	DESCRIPTION	QTY
1	340003B	BTRY CVR 340 BURGUNDY	1
2	340004B	BTRY CVR 340 BURGUNDY	1
3	3337022	ASSY-SOLUTION TANK 3200	1
4	3337023	ASSY-RECOVERY TANK 3200	1
5	3308415	SEAT-MICH-V560 W/SWITCH	1
6	3323953	SWITCH-SEAT QUICK MNT N.O. TC1	1
7	3337056	WELD-SEAT MOUNT PLATE	1
8	3337055	PLATE-SOLUTION CONT PANEL	1
9	340060	COVER HINGE 34 RIGHT	3
10	340044	COVER HINGE 34 LEFT	3
11	710177	SCR-MC 1/4-20X.37 ST PL	24
12	3337011	PLUG-2.00" NPT SQ PVC	1
13	340006B	CVR REC 340 BURGUNDY	1
14	340005B	CVR SOL 340 BURGUNDY	1
15	715206	DECAL-REC. TANK COVER	1
16	715205	DECAL-SOL. TANK COVER	1
17	340061	REAR VENT SCREEN 16 GA	2
18	712540	SCR-MC 10-24X.37 SS TH	8
19	340664	SOFT LATCH W/KEEPER	2
20	711160	SCR HI/LO #10 X 5/8 PL	8
21	340061	REAR VENT SCREEN 16 GA	2
22	3337149	WELD-FLOOR PAN 3200	1
23	3400252	SCR-HEX,1/4-20X3.0 ZP	4
24	3337013	CLAMP-VIBRATION DAMPENING 2"	2
25	383318	FITTING PP 90 2"MPT 2"BARB	1
26	833160	ADPT ABS 1.5FPTX 1.5SLIP	1
27	340043	PVC PIPE 1 1/2 C/L 29.5	1
28	711203	BLT-HH 1/4-20X.62	18
29	3337052	PLATE-SOLUTION FLOAT SWITCH	1
30	3337016	GASKET-SOL FLOAT SWITCH 3200	1
31	712810	SCR-MC 10-24X.37 STPL	4
32	830448	DEFLECTOR	1
33	831664	WSR SS 2.12IDX2.75ODX.03	1
34	831812	FITTING ABS 1.5MPT 1.5HOSE	1
35	828971	NUT 1 1/2 PIPE THREAD	1

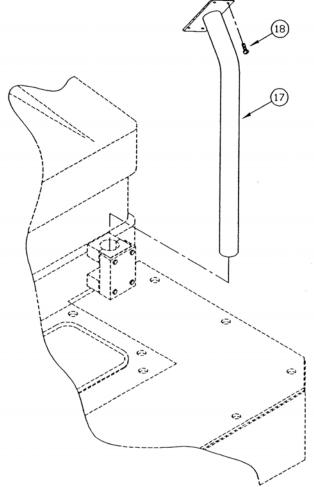
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Minuteman Body Group (Tanks & Battery Cover Doors—Continued)

REF#	PART#	DESCRIPTION	QTY
36	3337053	PLATE-TANK MATCH REAR TOP	1
37	742708	FLOAT SWITCH	1
38	711544	WSR-HELICAL 1/4	18
39	3337033	ASSY-FWD/REV PEDAL 3200	1
40	340057	LID GASKET SHORT	2
41	340058	LID GASKET LONG	2
42	712540	SCR-MC 10-24X.37 SS TH	4
43	3337163	DECAL FLOORBOARD LOWER 3200	1
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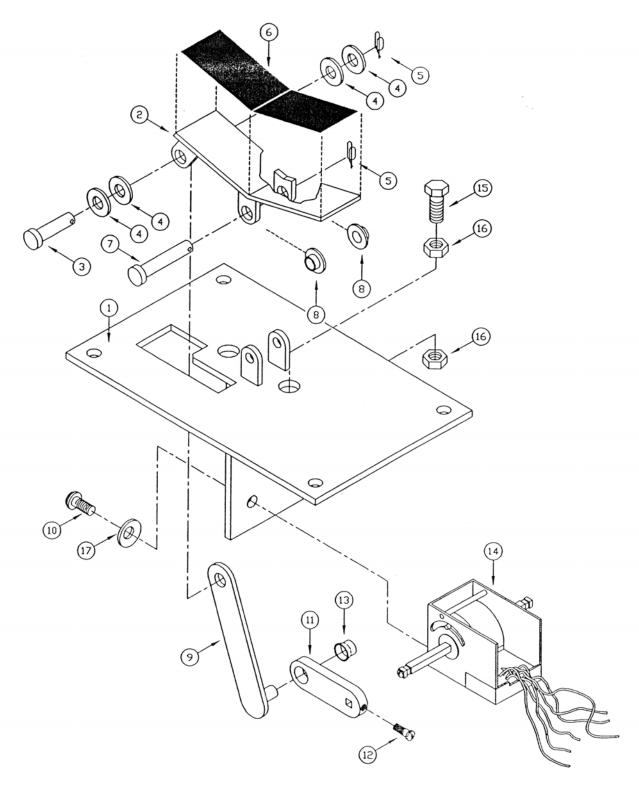


Body Group (Instrument Panel)

Parts

REF#	PART#	DESCRIPTION	QTY
1	3317960	BLOCK-CONTACT NC	1
2	3317816	SWITCH-EMERGENCY SHUT-OFF	1
3	3323970	GAGE-BAT/HR COND METER TC/1	1
4	3323972	SWITCH-DPDT ON-ON	1
5	3323529	PLUG-CARLING CONTURA SWITCH	3
6	3323653	SWITCH-IGNITION TC/I	1
7	742736	SWITCH, HORN	1
8	3337009	LIGHT-36V POWER INDICATOR 3200	1
9	3323972	SWITCH-DPDT ON-ON	1
10	3323446	SWITCH-FWD/REV ROCKER TC/I	1
11	3323529	PLUG-CARLING CONTURA SWITCH	3
12	3323529	PLUG-CARLING CONTURA SWITCH	3
13	3337005	DECAL-INST CONTROL PANEL 3200	1
14	3337006	DECAL-IGNITION SWITCH 3200	1
15	3337071	PLATE-INST CONTROL PANEL 3200	1
16	3337070	WELD-INSTRUMENT POD 3200	1
17	3337067	WELD-INST POD POST 3200	1
18	3400956	SCR-PAN 1/4-20 X 1.0 PHL ZP	8
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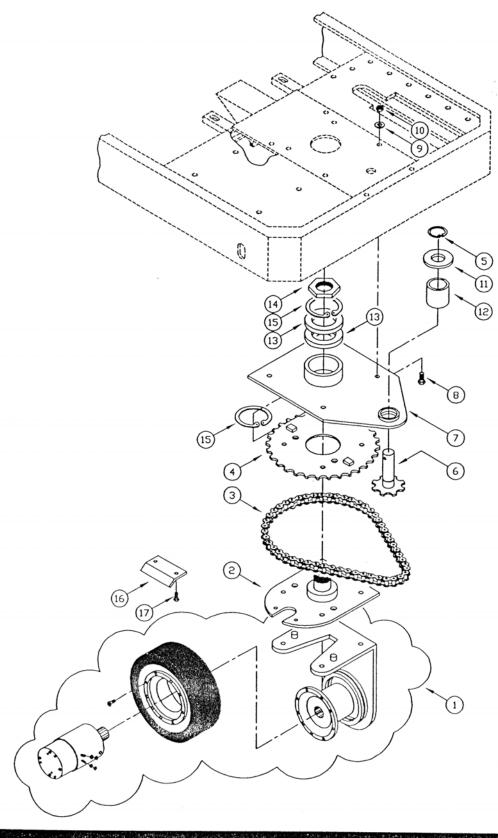
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Vinuteman Body Group (Directional Control)

REF#	PART#	DESCRIPTION	QTY
1	3337145	WELD-FWD/REV THROTTLE MNT	1
2	3337141	WELD-FWD/REV PEDAL 3200	1
3	3400118	PIN-CLEVIS 5/16 X 7/8 ZP	1
4	3400088	WASHER-FLAT 5/16 STANDARD ZP	4
5	3400125	PIN-COTTER 3/8 RUE-RING	2
6	3337162	DECAL-FWD/REV PEDAL 3200	1
7	3400266	PIN-CLEVIS 3/8 X 2.00 ZP	1
8	3300414	BUSHING-PLASTIC MN BRM	2
9	3337140	WELD-PIVOT BAR FWD/REV	1
10	710252	SCR-MC 10-32X.25 ST NI	2
11	3337135	BAR-FWD/REV SHORT 3200	1
12	711003	SCR-SK 10-32X.25	1
13	75-89-A	SPEED NUT	1
14	742913	THROTTLE ASSY	1
15	3400034	SCR-HEX,5/16-18X1.25 ZP	2
16	3400070	NUT-HEX 5/16-18 ZP	4
17	712758	WSR-HELICAL 1/4 SS	2
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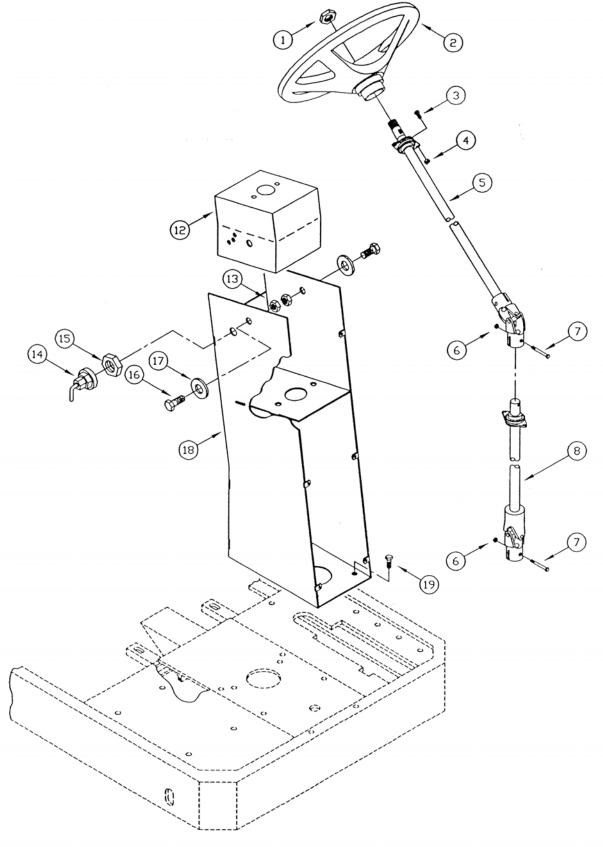


Drive Wheel Group

Parts

REF#	PART#	DESCRIPTION	QTY
1	3337001	MOTOR-DRIVE MR300 3200	1
2	3308333	WELD-MOTOR MOUNT TURRET PLTD	1
3	3308405	CHAIN-STEER #35	1
4	3337049	WELD-STEERING SPROCKET 3200	1
5	3400717	RING-RET .75 DIA SHAFT V/SW	1
6	3337084	WELD-BTM STR INPUT SHAFT	1
7	3337123	WELD-STRG TURRET MNT	1
8	3400444	SCR-FLT,3/8-16X1.00,SOC	4
9	3400087	WASHER-FLAT 3/8 STANDARD ZP	4
10	3400079	NUT-HEX 3/8-16 ES ZP	4
11	3311012	WASHER-HD SPACER SEC LIFT ARM	1
12	3303945	BEARING-FIBERGLIDE HYD.SQ.LIFT	1
13	3308338	BEARING-3.15 X 1.57 X .71	2
14	3308397	NUT-BEARING LOCK	1
15	3307237	RING-RET INT INNER WHEEL SW/A	2
16	3308518	PLT-WIRE RETAINER	1
17	3400315	SCR-HEX,#10-32X0.50 ZP	2
		END OF THIS SECTION	

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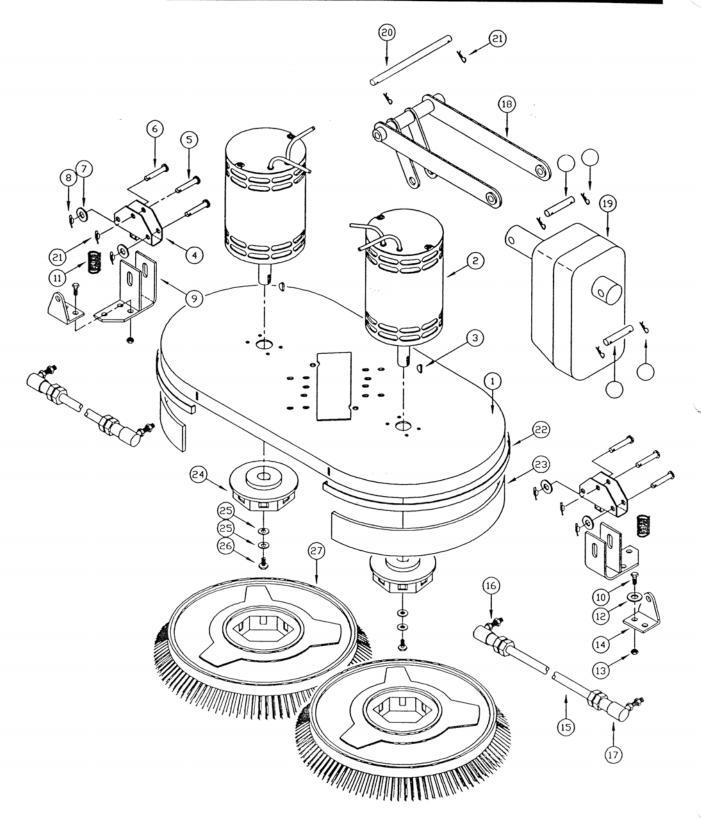


Steering Group

Parts

REF#	PART#	DESCRIPTION	QTY
1	3400074	NUT-HEX JAM 5/8-18 ZP	1
2	3323097	WHEEL-STEERING TC/1	1
3	3400739	BOLT-CARRIAGE 5/16-18 X 3/4 ZP	4
4	3400390	NUT-FLANGE LOCK 5/16-18	4
5	3337008	SHAFT-STEERING INPUT SHT 3200	1
6	3400080	NUT-HEX 5/16-18 ES ZP	2
7	3400231	SCR-HEX,5/16-18X2.0 ZP	2
8	3337007	SHAFT-STEERING INPUT LG 3200	1
9	-	line not used	-
10	-	line not used	-
11	-	line not used	-
12	3337077	WELD-STR WHEEL PIVOT 3200	1
13	3400392	NUT-FLANGE LOCK 3/8-16	2
14	3337002	PIN-QUICK RELEASE PLUNGER 3200	1
15	3400145	NUT-HEX JAM 3/4-10 ZP	1
16	3331330	BOLT-SHLD 1/2 X 5/8 X 3/8-16	2
17	3400086	WASHER-FLAT 1/2 STANDARD ZP	6
18	3337087	WELD-STEERING POD 3200	1
19	3400030	SCR-HEX,3/8-16X1.00 ZP	2
20	3308397	NUT-BEARING LOCK	1
		END OF THIS SECTION	

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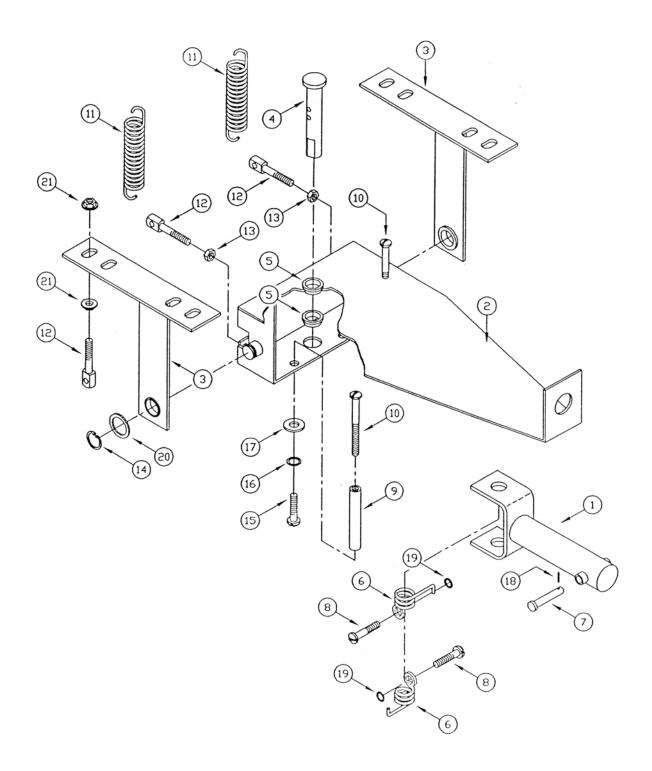


Vinuteman Scrubdeck Group (Scrubdeck Assembly)



REF#	PART #	DESCRIPTION	QTY
1	3337097	WELD-SCRUB DECK 3200	1
2	742714	MOTOR, 36V 1HP	2
3	833621	KEY 1/4 X 1/4 X 1	2
4	320255	BRK,SPRING SUPPORT 11 GA	2
5	711672	CLEVIS PIN 1/2" X 2.00LG	2
6	711671	CLEVIS PIN.31x2.13 11-10	4
7	711506	WSR-FLAT 5/16 ST PL	4
8	3400125	PIN-COTTER 3/8 RUE-RING	4
9	383053	LIFT BRK'T WELDMENT	2
10	712575	BLT-HH 5/16-18X.75 SS	6
11	260137	COMPRESSION SPRING	2
12	711545	WSR-HELICAL 5/16	6
13	712680	NUT-HEX 5/16-18 SS	6
14	3337040	MNT-LIFT ARM 3200	2
15	3337160	ROD-3/8-24 X 10.06	2
16	3300820	BALL JOINT-3/8-24 W/QK REL	2
17	3300461	BALL JOINT-3/8-24 W/DUST COV.	2
18	3337156	WELD-SCRUB LIFT	1
19	742712	ACTUATOR SPO-2655	1
20	3337041	PIN-5/8 X 8.00	i
21	3400124	PIN-COTTER 5/8 RUE-RING	2
22	3337093	WELD-SKIRT STRAP 3200	2
23	430048	EXTRUDED SKIRT RAW	5 ft.
24	430035	DRIVE HUB	2
25	711517	WSR-FLAT .77X1.37X.03	2
26	210066	DRIVE HUB RETAINER BLT	2
27	-	Choose from the following items	-
	430131	BASSINE BRUSH 17B/E 32B	2
	430111	POLYGRIT BRUSH 17B/E 32	2
	430034	NYLON BRUSH 17B/E 32B	2
	430108	PAD DRIVER 17B/E 32B	2
	430132	STRATAGRIT BRUSH 17B/B32	2
		END OF THIS SECTION	

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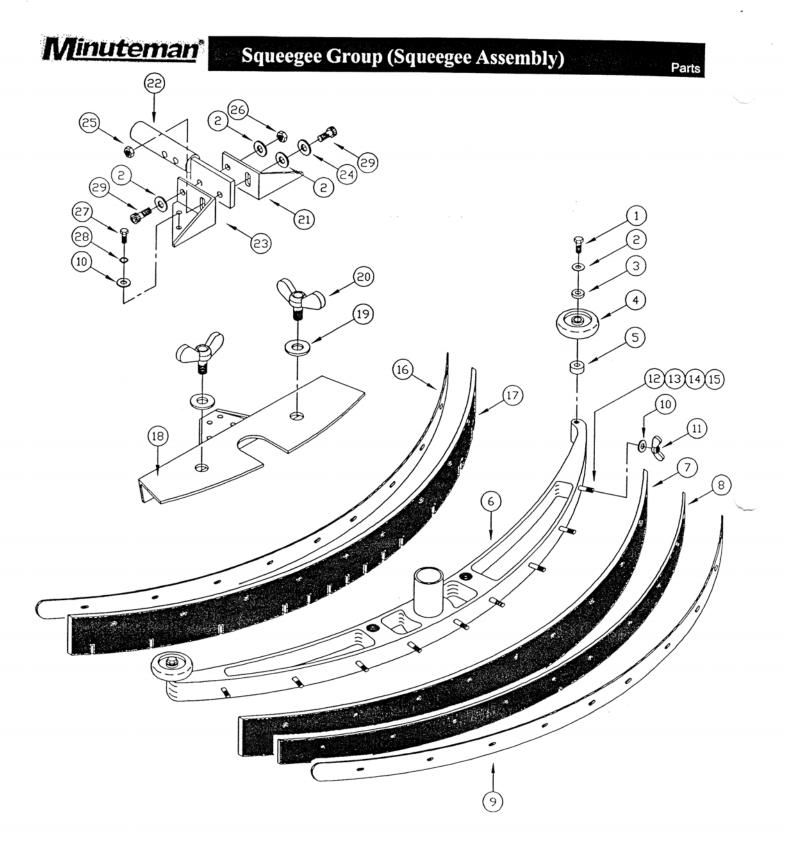
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Vinuteman Squeegee Group (Squeegee Lift Assembly)

REF#	PART #	DESCRIPTION	QTY
1	320160	YOKE WELDMENT	1
2	320162	SPRING HSG WELDT	1
3	320008	PIVOT BRACKET ASSEMBLY	2
4	210375	SWIVEL PIN	1
5	260041	OILITE FLANGE BUSHING	2
6	210391	RETURN SPRING SS	2
7	711671	CLEVIS PIN.31x2.13 11-10	1
8	712536	SCR-MC 10-24X.62 SS	2
9	210400	SPACER TUBE	2
10	710592	SCR-MC 1/4-20x3.00 SS TH	2
11	430051	RETURN SPRING	2
12	260292	SWING BOLT ZINC PLATED	4
13	712665	NUT-HEX 1/4-20 SS	2
14	711715	RETAINING RING-EXT .75	2
15	712562	BLT-HH 1/4-20X.75 SS	1
16	712758	WSR-HELICAL 1/4 SS	1
17	711504	WSR-FLAT 1/4 ID SS	1
18	711808	COTTER PIN-HAIR #13	1
19	712320	WSR NYLON .22 X .45 X.04	2
20	711517	WSR-FLAT .77X1.37X.03	2
21	711425	NUT-FLANGED WIZZ 1/4-20	4
		END OF THIS SECTION	

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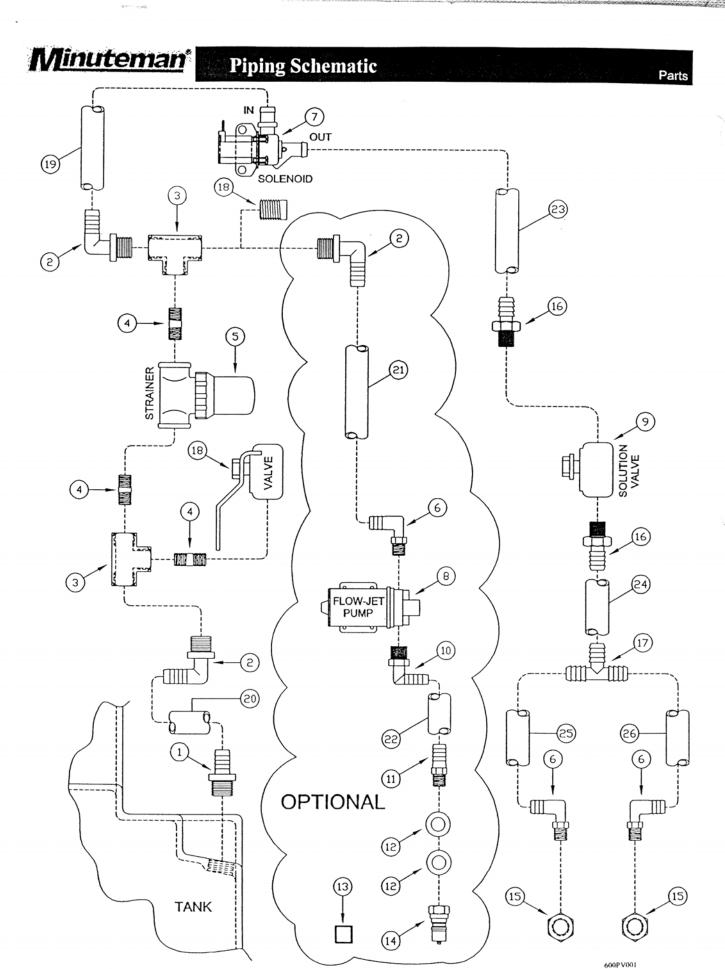


Squeegee Group (Squeegee Assembly)

Parts

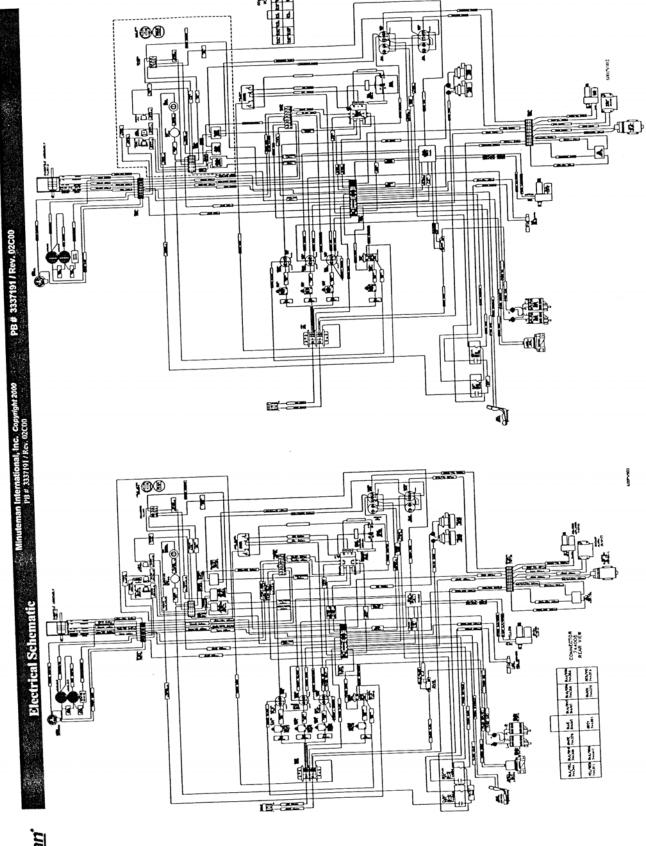
REF#	PART #	DESCRIPTION	QTY
1	712091	SHOULDER BLT 3/8 X 1.5	2
2	711507	WSR-FLAT .37X1.12X.06	5
3	711592	WSR NYLON .5X1.06X.06	2
4	808829	WHEEL TRUCK	2
5	832015	SPACER .38 X .5 X .14	2
6	320190MCH	SQUEEGE CASTING MCH	1
7	320194	REAR SQUEEGE BLADE	1
8	320195	REINFORCMENT BLADE 320	1
9	320192	REAR BLADE STRAP 320	1
10	711504	WSR-FLAT 1/4 ID SS	12
11	712668	WING NUT SS 1/4 20	8
12	712571	CR BLT SS 1/4 20 X 1.5	2
13	712572	CR BLT SS 1/4 20 X 2.00	2
14	712573	CR BLT SS 1/4 20X 2.50	2
15	712574	CR BLT SS 1/4 20 X 3"	2
16	320193	FRONT BLADE STRAP 320	1
17	320196	FRONT SQUEEGE BLADE 320	1
18	320191	SQUEEGE MTG BKT 320	1
19	711578	WSR-FLAT 1/2 BR	2
20	260287	BOLT WING 1/2-13 1.00"	2
21	320156	MTG BKT RH 11GA	1
22	320154	SQUEEGE MTG WELDMENT	1
23	320157	MTG BKT LH 11GA	1
24	712301	WSR-FLAT .37X.87X.06 PL	1
25	711379	NUT-FLANGED WIZZ 5/16-18	1
26	711374	NUT-NLOC 5/16-18	1
27	712562	BLT-HH 1/4-20X.75 SS	4
28	712758	WSR-HELICAL 1/4 SS	4
29	712081	BLT SDR 5/16/18X.75X.375	2
		END OF THIS SECTION	

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REF#	PART #	DESCRIPTION	QTY
1	3402016	FTG-3/4 NPT X 1/2 HOSE BARB	1
2	383326	FITTING PP 90 1/2MPT 1/2BARB	6
3	383325	FITTING BRASS TEE 1/2FPT	3
4	3305281	FTG-NIPPLE CLOSE 1/2 MPT	3
5	3323501	STRAINER-IN-LINE SOLUTION TC/1	1
6	383337	FITTING PP 90 3/8MPT 1/2BARB	3
7	3323959	SOLENOID-36V SOLUTION TC/I	I
8	742709	PUMP, 36V 60PSI	1
9	809413MCH	SOL VALVE 170 /175	1
10	3402017	FTG-3/8 NPT X 3/8 BARB	1
11	3400261	FTG-HOSE BARB 1/4 MPT TO 3/8	1
12	711579	WSR-FLAT .56X1.00	2
13	740711CE	SWITCH DREEFS W/ SPLASHG	1
14	828368	BH2-61 MALE COUPLER	1
15	383228	NUT 3/8 N.P.T. NYLON	2
16	3307829	FTG-HOSE BARB 1/2 X 3/8 MPT	2
17	3402015	FTG-1/2 HOSE BARB TEE	1
18	3313199	VALVE-BALL 1/2 FPT BRASS	1
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