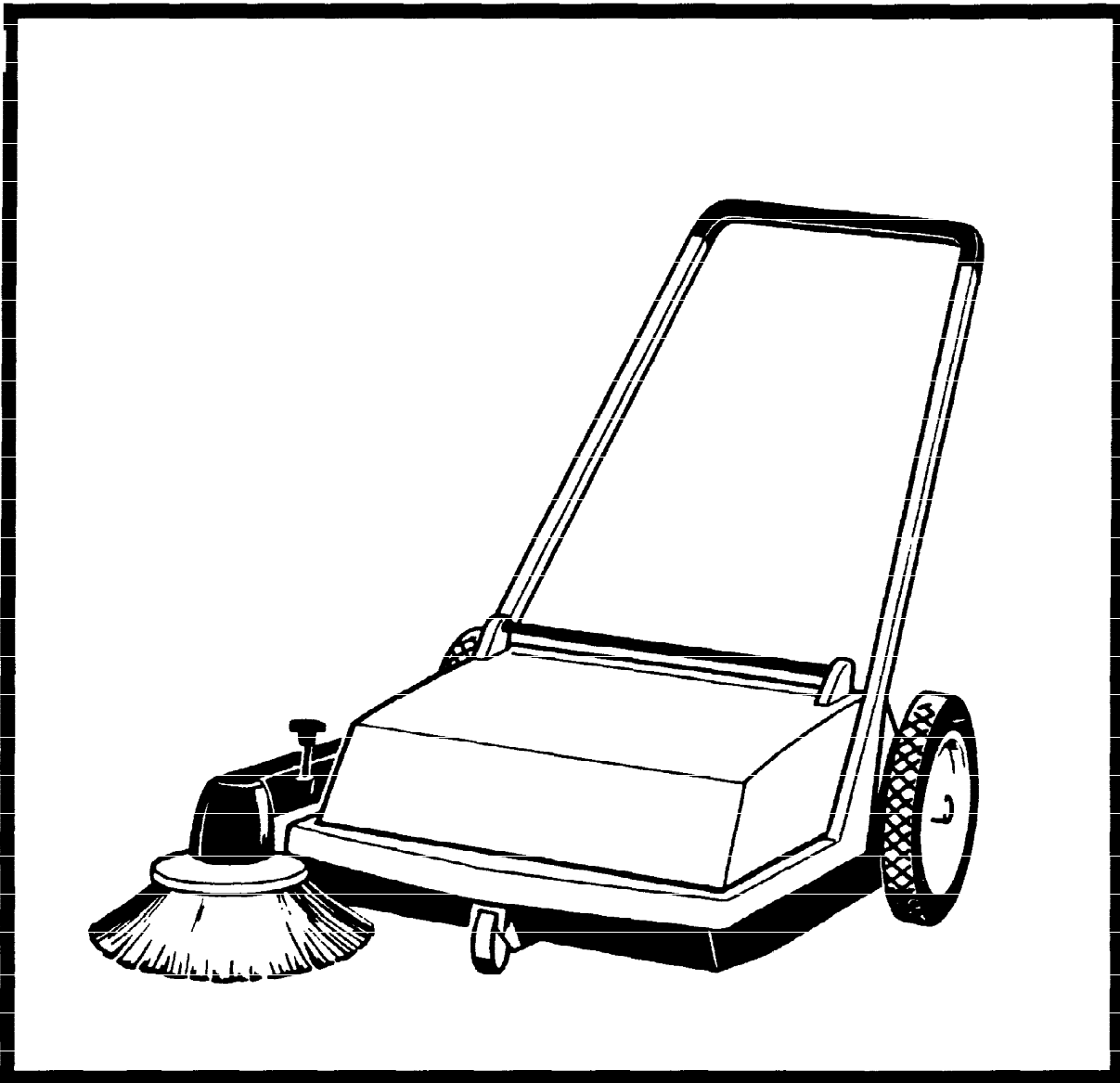


# Flipper

Model: C850000

■ OPERATION ■ SERVICE ■ PARTS ■ CARE



Revised 8/93

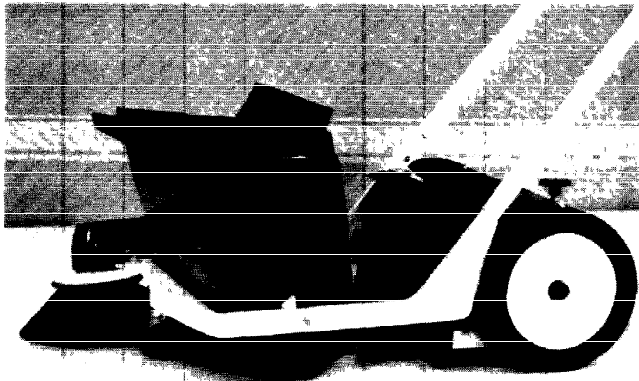
**Minuteman**<sup>®</sup>

## ASSEMBLING INSTRUCTIONS FOR THE MINUTEMAN FLIPPER C-850000

1. The handlebar is fitted with the supplied bolts (Picture I/6).
2. For side brush arm installation refer to picture III on page 2 for a view of how the side arm mounts. Remove the two screws from the top of the right side rail with a blade type screw driver. Unpack the side arm, unfold the "V" belt, and extend it fully from the pulley on the brush head to the rear of the mounting bracket. Make sure there are no twists or kinks in the belt and then slide the open end of the belt over the right wheel onto the pulley. Move the arm towards the front of the machine to take the slack out of the belt. Insert the mounting screws through the slots in the bracket and mount to the side arm. NOTE: It will be necessary to raise the arm to get at one of the screws. Only lightly tighten the screws so that the final adjustment can be made. Align the bracket so that the brush level control rod rests on the zinc plated bracket mounted to the side of the arm. Move the whole side arm forward until there is a slight tension in the belt and tighten both mounting screws. NOTE: It is not necessary to have the belt overly tight. Apply only enough tension to keep the belt from rubbing on itself. Check to see that the level control rod rests against its stop.
3. To mount the sidebrush proceed as follows: Fit the disc brush (Picture III/6) with the 3 screws. Should the packing have caused the bristles to stand upright place the brush bristles face down on a flat surface with a weight on top. In a very short time the bristles will have returned to their correct position.

### Picture I

1. Dust Collector
2. Sidebrush Adjustment
3. Dust Collector pivot bearing
4. Drive wheel
5. Roller, brush adjustment
6. Handle connected by two bolts on each side



### **OPERATION**

The Minuteman Flipper works with two brushes, the disc-type sidebrush bringing the dirt and waste from the side into the path of the main roller brush. The roller brush turns against the direction of travel and throws the dirt into the dust collector (I/1) at the front.

Both brushes are driven by the wheels, the roller brush turning continuously in the same direction whether traveling forwards or backwards. A support wheel (III/7) assures a constant, even sweeping action since the machine is kept at the same height above the ground all the time. Rubber aprons (III/3), which are fitted to the left and right of the brush chamber, provide the required seal at the sides. To the front is a dust collector and at the back there is another amply dimensioned flexible rubber apron. This assures that any objects caught up under the dust collector when traveling forward are brought back within the reach of the brush when the machine is pulled back over them. The best method of sweeping the floor clean of bulky objects is by pulling the Minuteman Flipper.

### **MAIN BROOM**

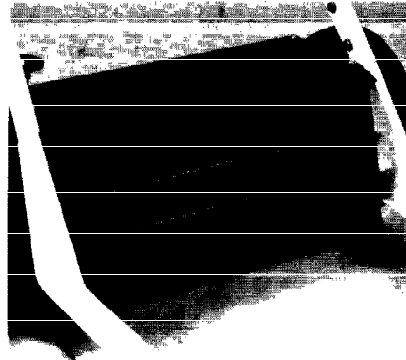
The broom roller consists of a broom shaft with three broom supports, one lockwasher with Allen screw, and ten broom assemblies comprised of five soft broom rails and five stiff broom rails. For best sweeping results, the stiff and soft rails should be placed alternately on the broom roller.

For replacement of the broom assemblies proceed as follows:

- Loosen the Allen screw and turn the lockwasher slightly until the notch and the end of the broom rail are placed next to each other.
- Pull broom rail to the right in order to make it unlock from the broom supports of the broom shaft and to remove it.
- Turn the lockwasher and remove the rest of the broom rails as described above.

**Picture II**

1. Brush rail holder
2. Brush rail
3. Rubber apron
4. Brush rail holder fitting bolt
5. Roller brush adjustment

**SIDEBRUSH**

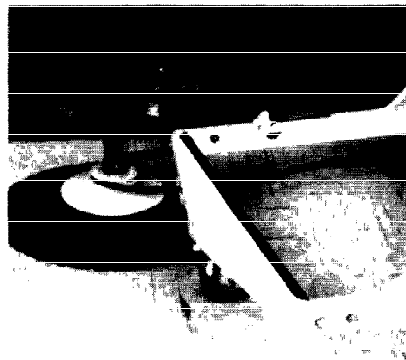
The sidebrush is fitted to the frame through the brush arm. The brush is driven from the right hand drive wheel via a V-belt (8 x 1700 DIN 2215 (III/4)). The belt runs from the drive wheel pulley direct to the outside of the brush pulley and from the inside over a guide roller (III/2) back to the bottom of the drive wheel pulley. Belt tension can be adjusted by moving the arm bearing (III/9) backwards or forwards. To change the V-belt, loosen the locking screw (III/1). This allows the brush to be pulled downwards and taken out of the arm. On the spindle over the actual brush there is a loose deflector disc (III/5) which allows the sweeper to be driven close-up to walls or similar surroundings without the sidebrush or machine getting caught up. The sidebrush is adjusted by means of the handwheel (III/10). Only the front third of the sidebrush must be allowed to come into contact with the ground so that the dirt is thrown in front of the roller brush and not taken back again by the brush as it rotates. The working height of the sidebrush is maintained by the support wheel (III/7).

**DUST COLLECTOR**

It is a simple matter to lift up the collector (I/1) by its handle. The collector is mounted in a pair of pivot bearings (I/3) and to prevent any dust escaping it must fit up tight against the brush chamber. The distance between collector and brush chamber can be adjusted by moving the bearings (III/8) along the frame in either direction.

**Picture III**

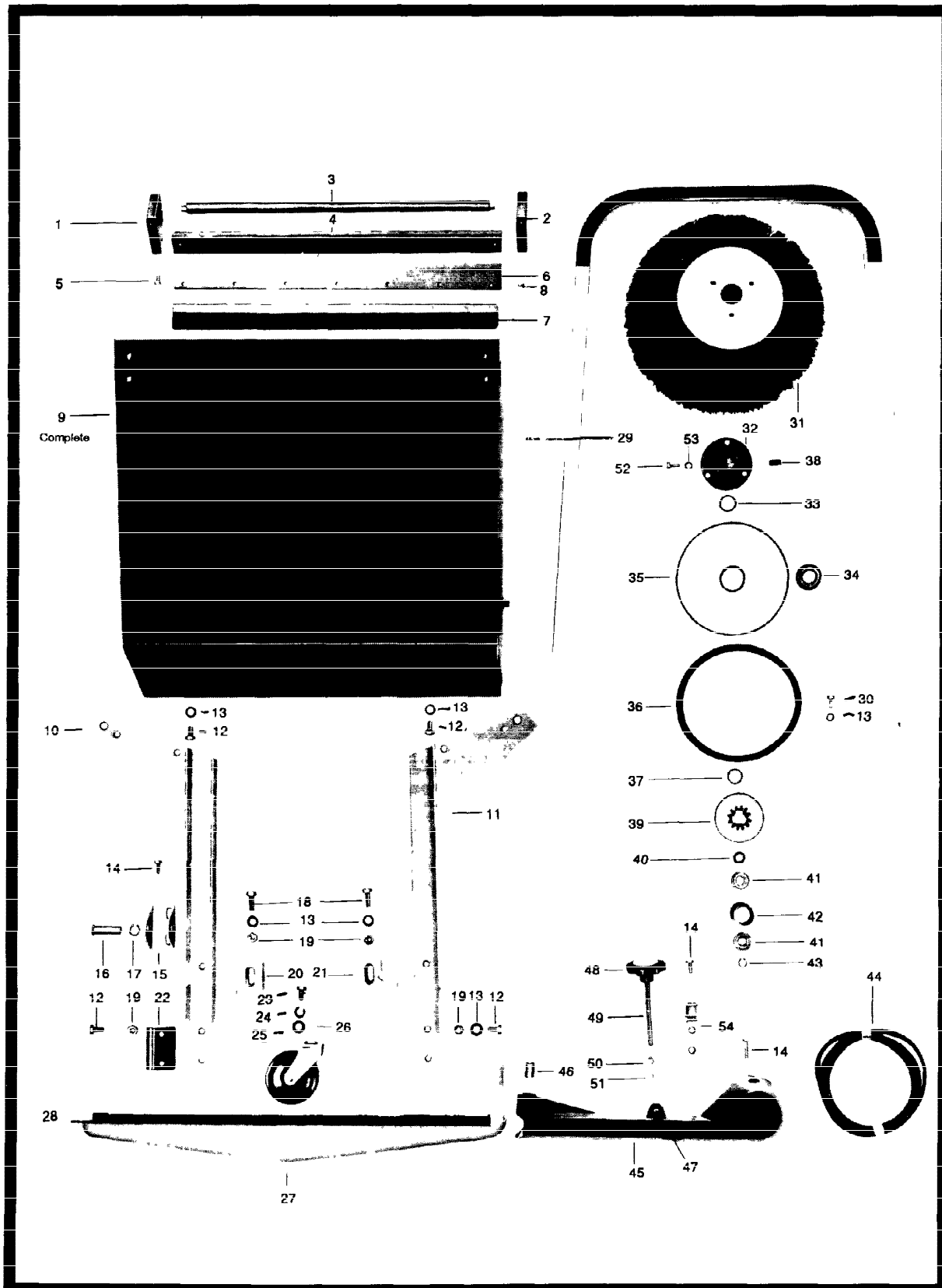
1. Brush locking screw
2. V-belt guide roller
3. Brush bearing
4. V-belt
5. Deflector disc
6. Sidebrush
7. Support wheel
8. Dust collector bearing
9. Bearing for sidebrush
10. Sidebrush arm adjustment

**RUBBER APRONS**

The thick rubber aprons (i.e. II/3) prevent dust raised by the brush from escaping. Damaged or worn aprons can no longer do their job effectively and must be replaced.

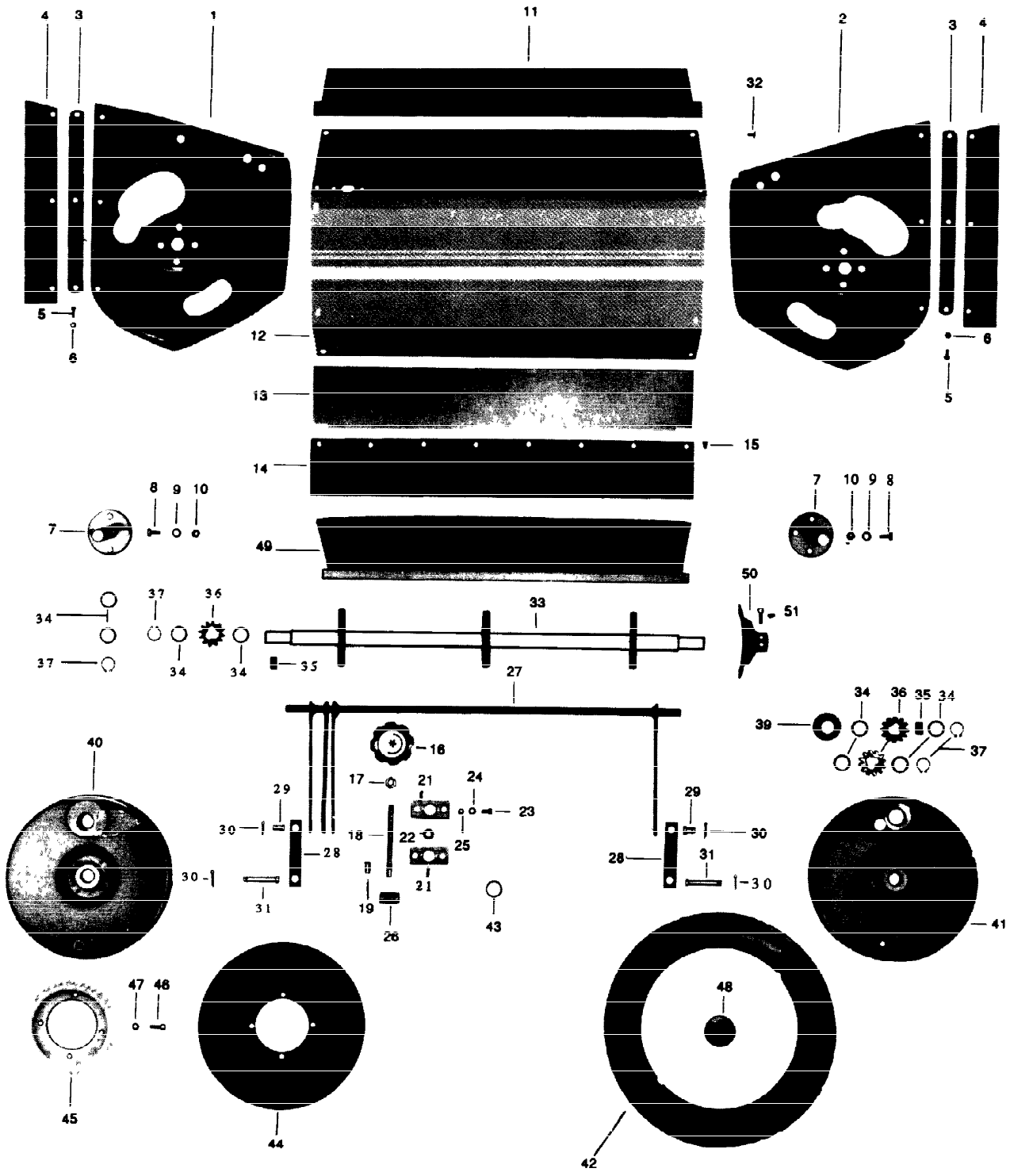
**MAINTENANCE**

Maintenance is limited to regular cleaning. However, when the machine is in constant use it is recommended that the drive wheels be taken off, cleaned and repacked with universal grease once a month.



## PARTS LIST

Item	Part No.	Qty.	Description
1	10-778	1	Handle holder, R
2	10-777	1	Handle holder, L
3	41-049	1	Handle tube
4	41-051	1	Left bracket
5	02-526	4	Screw M 6 x 10 DIN933
6	14-055	1	Rubber apron
7	41-050	1	Metal strip
8	13-485	7	Screw 5 x 9.5
9	01-221	1	Flipper bin complete
10	45-038	1	Right side rail
11	45-037	1	Left side rail
12	05-309	8	Bolt 8 x 20
13	05-375	22	Washer, M8 flat
14	53-973	7	Torx screw, self tap
15	10-770	1	Sidearm stabilizer bracket
16	10-769	1	Brass pin
17	07-244	1	Medium snap ring
18	07-711	2	Bolt 8 x 22
19	05-335	6	Nut, M8 thick
20	10-765	1	Right duck
21	10-766	1	Left duck
22	10-767	1	Sidearm support bracket
23	12-543	1	Bolt 10 x 30
24	13-747	1	Big lock washer
25	85-538	1	Flat thick washer
26	80-024	1	Caster wheel
27	45-039	1	Bumper with caster wheel
28	49-090	1	Black plastic bumper guard
29	31-023	1	Handle
30	05-308	4	Bolt, 8 x 16
31	31-020	1	Side brush
32	12-703	1	Side brush axle
33	13-555	1	Washer
34	10-630	1	Large ball bearing
35	41-040	1	Metal disc plate
36	12-706	1	Rubber ring
37	12-707	1	Spacer
38	12-705	1	Key
39	12-708	1	V-belt pulley
40	12-722	1	Brass spacer
41	12-723	2	Small ball bearing
42	04-862	1	Bearing bushing
43	10-323	1	Small snap ring
44	41-052	1	V-belt
45	03-385	1	Side brush arm
46	12-709	1	Sidearm bushing
47	02-087	1	Angle
48	48-043	1	Adjustment knob
49	12-724	1	Threaded rod
50	04-650	1	M8 thin nut
51	02-740	1	Plastic cap
52	05-301	3	Bolt, M 6 x 16
53	12-710	3	Tooth lock washer
54	12-702	1	idler pulley



**PARTS LIST**

<b>Item</b>	<b>Part No.</b>	<b>Qty.</b>	<b>Description</b>
1	41-043	1	Left side panel
2	41-044	1	Right side panel
3	12-720	2	Metal strip
4	14-047	2	Rubber apron
5	13-236	6	Screw M 4 x 10
6	05-281	6	Nut M4
7	12-714	2	Axle
8	10-450	8	Bolt 6 x 12
9	05-340	8	Lockwasher
	05-333	8	Nut M6
11	14-048	1	Rubber apron
12	31-022	1	Back cover with rubber apron (14-048)
13	41-047	1	Metal angle
14	14-051	1	Rubber apron
15	13-485	8	Screw 5 x 9.5
16	48-043	1	Adjustment knob
17	04-650	1	M8 thin nut
18	50-423	1	Threaded rod
19	05-777	1	Pin
20	07-423	2	Washer
21	12-728	2	Support
22	12-726	1	Ball
23	10-146	2	5 x 10
24	05-383	2	Spring washer
25	05-332	2	Nut, M5
26	12-711	1	Swivel/trunnion
27	41-048	1	Welded rod
28	10-775	2	Brace
29	10-776	2	Small pin
30	711808	4	Cotter pin (Hair #13)
31	12-715	2	Long pin
32	74-716	10	Screw St. A point #10/M5
33	76-059	1	Main axle
34	07-746	12	Thick washer
35	12-705	2	Key
36	10-771	3	Metal gear
37	10-145	5	Large snap ring
38	10-176	4	Thin washer
39	10-630	2	Large bearing
40	41-045	1	Left inner wheel
41	41-042	1	Right inner wheel
42	39-125	2	Rubber tire with rim
43	74-724	4	Plastic wheel bushing
44	41-038	2	Metal disc
45	41-039	2	Plastic gear
46	05-353	8	Screw 5 x 15
47	05-417	8	Spring washer
48	12-716	2	Wheel hub
49	33-075	10	Brush rail
50	74-906	1	Brush support complete
51	74-905	1	Screw M 5 x 20 set

Spare parts orders should be sent to your Minuteman Dealer. When ordering spare parts please state the following:

1. Type of machine. Serial number of machine.
2. Exact destination of the required spare parts as well as order and stock number, but without picture number.
3. Mode of transport: Parcel Post, U.P.S., Truck, etc.
4. Correct and full address, and to whose attention any parts should be sent.
5. *In case of doubt please send the defective part together with a bill of lading or a letter.*
6. *The sample will be scrapped if not informed otherwise.*

Please use original Minuteman Flipper parts only.

### LIMITED WARRANTY

The Minuteman Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of two years from date of purchase. In addition, Minuteman Inc. will, at its option, honor labor warranty claims for the first 12 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman Inc. will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts not manufactured by Minuteman Inc. such as engines, batteries, battery chargers, hydraulic pumps, and tires are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman Inc. for procedures in warranty claims against these manufacturers.

**Special warning to purchaser** -- Use of replacement filters and/or prefilters not manufactured by Minuteman Inc. or its designated licensees, will void all warranties expressed or implied.

A potential health hazard exists without exact original equipment replacement.

All warranted items become the sole property of Minuteman Inc. or its original manufacturer, whichever the case may be.

Minuteman Inc. disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman Inc. assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Minuteman Inc. is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman Inc. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

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