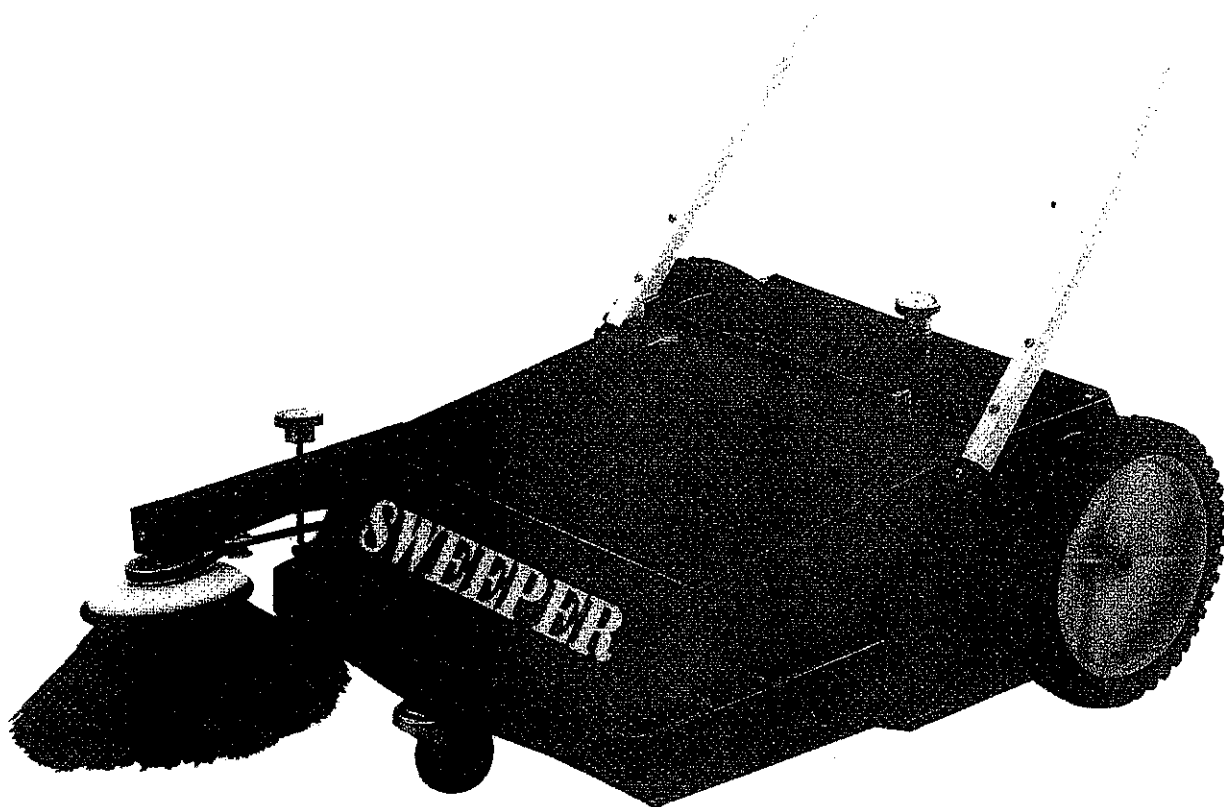


# PUSH SWEEPER

MANY TIMES FASTER THAN CLEANING WITH A PUSH BROOM AND DOES A BETTER JOB TOO. BRUSH AND BROOM COVER 2000 M<sup>2</sup>/HOUR. AS EASY TO PUSH AS A CHILDREN'S CART. ROTATION OF WHEELS TURNS BROOMS CLEANS 27 INCH SWATH. SIDE BROOM ALLOWS FOR CLEANING ALONG CURBS OR WALLS IN CORNERS. NO ENGINE NOR MOTOR, NO NOISE, NO ODOR. REQUIRE NO MAINTENANCE. RESERVOIR CAN BE EMPTIED EASILY AND RAPIDLY.



ALL STEEL FRAME ACTS AS A BUMPER, RUBBER-TIRED WHEELS. DIFFERENTIAL MOUNTING ALLOWS SWEEPING EVEN IN CORNERS. REMOVABLE TANK IN SHEET STEEL TILT-MOUNTED ON 2 BEARINGS. SHEET STEEL BODY. ROLLER BRUSH COMPOSED OF 10 INDIVIDUALLY INTERCHANGEABLE POLYPROPYLENE BROOM HAIR ELEMENTS. SIDE BRUSH IN POLYPROPYLENE BROOM HAIR. CAN BE RAISED AND DISENGAGES AUTO-MATICALLY. FLOOR PRESSURE ADJUSTABLE BY KNURLED KNOBS.

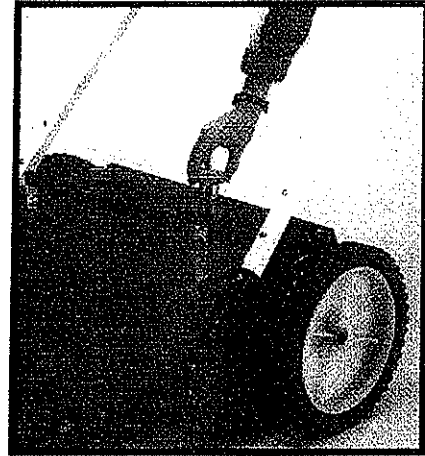
IT CAN BE USED ANYWHERE, ANYTIME...INDOORS OR OUTDOORS FOR CONCRETE, TILE N MANY COMMERCIAL CARPETS SUCH AS: GAS STATIONS, THEATERS, WAREHOUSES, INDUSTRIAL PLANTS, TENNIS COURTS, PARKING LOTS, SCHOOLS, OFFICES, HOSPITALS, STORES, SHOPPING MALLS, APARTMENT COMPLEXES, GARAGE N DRIVE WAY...ETC.

NOT USABLE FOR LIQUIDS OR HAZARDOUS MATERIALS.

# OPERATION

1. ADJUST THE HEIGHT OF THE MAIN SWEEPING BROOM SO THAT THE BRISTLES JUST TOUCH THE FLOOR.

**NOTE:** SWEEPING PERFORMANCE WILL BE POOR AND THE MACHINE WILL BE HARD TO PUSH IF THE MAIN BROOM IS SET TOO LOW.



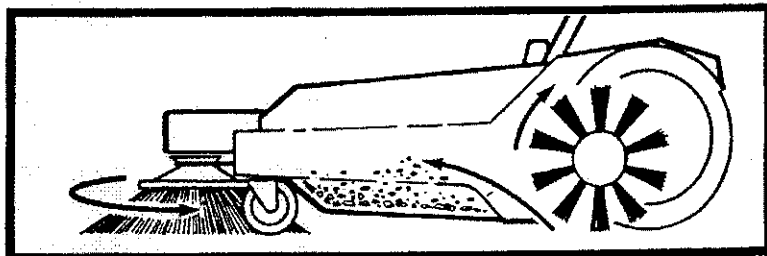
2. LOWER THE SIDE BROOM WHEN SWEEPING ALONG CURBS OR WALLS. LIFT THE SIDE BROOM WHEN SWEEPING IN AN OPEN AREA TO AVOID RAISING DUST.

**NOTE:** ADJUST THE SIDE BROOM HEIGHT SO THAT 1/3 OF THE BRISTLES ARE TOUCHING THE FLOOR.



3. PUSH THE MACHINE FORWARD AT A COMFORTABLE PACE. THE MAIN BROOM KICKS DIRT AND DEBRIS INTO DIRT HOPPER.

**NOTE:** THE MACHINE DOES NOT SWEEP WHEN IT IS PULLED BACKWARD.



4. LIFT THE HOPPER OFF OF THE MACHINE AND EMPTY IT AFTER EACH USE, OR WHENEVER DEBRIS IS LEFT BEHIND THE MACHINE.



FIG. 1

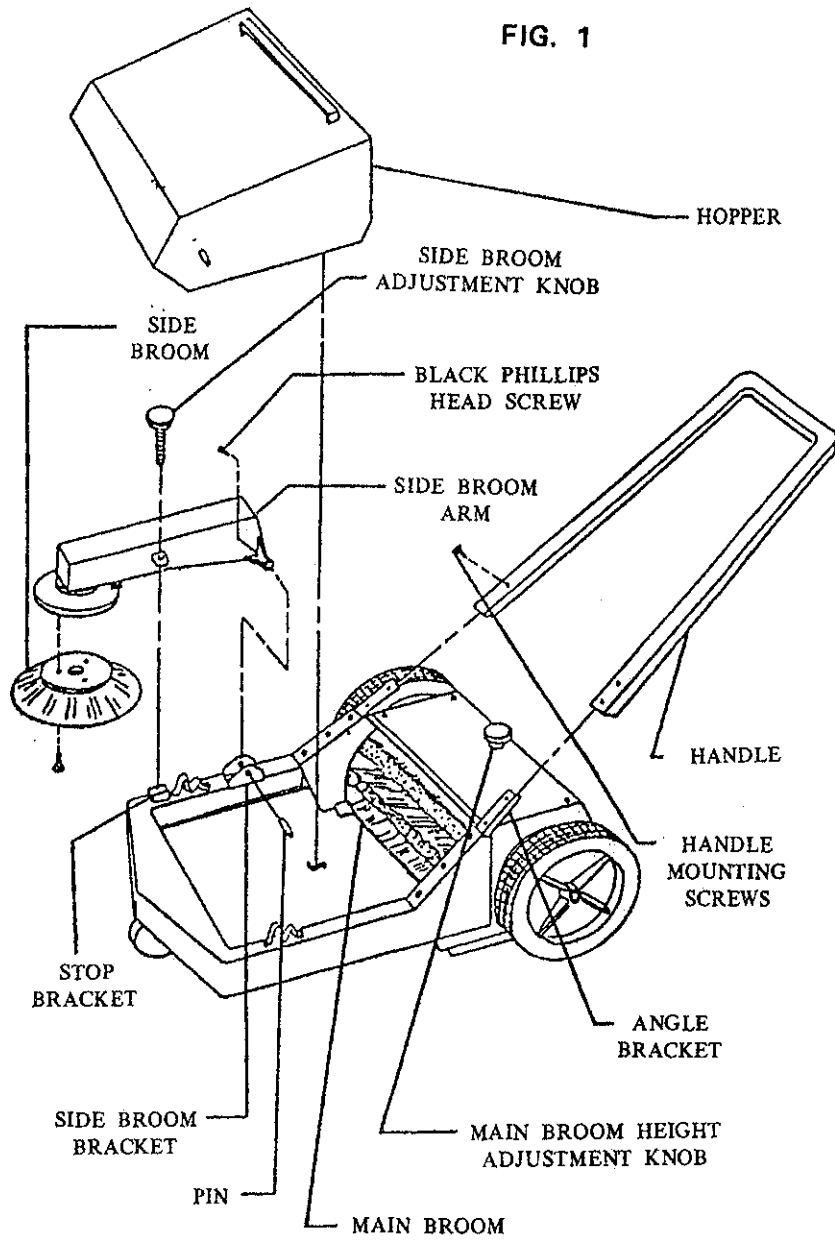
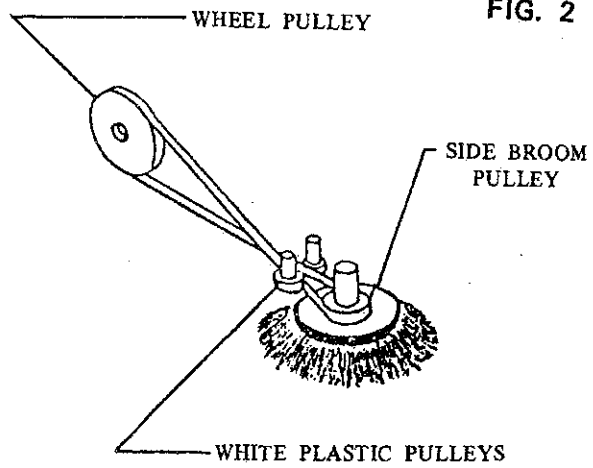


FIG. 2



# CAUTION

WHEN THE MACHINE IS DELIVERED, CAREFULLY INSPECT THE SHIPPING CARTON AND THE MACHINE FOR DAMAGE. IF DAMAGE IS EVIDENT, SAVE THE SHIPPING CARTON SO THAT IT CAN BE INSPECTED BY THE TRUCKING COMPANY THAT DELIVERED IT. CONTACT THE TRUCKING COMPANY IMMEDIATELY TO FILE A DAMAGE CLAIM. MAKE SURE THAT ALL LOOSE PARTS AND LITERATURE ARE REMOVED BEFORE THE SHIPPING CARTON IS DISCARDED.

# ASSEMBLY

1. REMOVE THE (4) HANDLE MOUNTING SCREWS FROM THE ANGLE BRACKETS ON THE MACHINE.
2. SLIDE THE HANDLE OVER THE ANGLE BRACKETS. LINE UP THE HOLES IN THE HANDLE WITH THE HOLES IN THE ANGLE BRACKETS AND REINSTALL THE (4) SCREWS.
3. PULL THE HANDLE ON TOP OF THE HOPPER UPWARD AND LIFT THE HOPPER OFF OF THE MACHINE.
4. LOWER THE SIDE BROOM INTO THE SIDE BROOM BRACKET SO THAT THE HOLES IN THE BRACKET ARE LINED UP WITH THE HOLE IN THE ARM.
5. SLIDE THE PIN (FROM THE HARDWARE PACKAGE) THROUGH THE HOLES IN THE BRACKET AND INTO THE ARM. POSITION THE PIN SO THAT IT IS CENTERED ON THE BRACKET.
6. INSTALL THE BLACK PHILIPS HEAD SCREW IN THE SIDE BROOM ARE AS SHOWN IN FIG. 1. TIGHTEN THE SCREW TO HOLD THE PIN IN PLACE.
7. LIFT THE RIGHT, REAR WHEEL OFF OF THE GROUND AND PUT THE BELT AROUND THE PULLEY ON THE INSIDE OF THE WHEEL. PIVOT THE SIDE BROOM ARM ALL THE WAY UP.
8. PULL THE BELT TOWARDS THE FRONT OF THE MACHINE AND TWIST THE BELT 1/4 TURN COUNTER-CLOCKWISE (THE PART OF THE BELT FROM THE TOP OF THE REAR WHEEL SHOULD MOVE AWAY FROM THE MACHINE).
9. LIFT THE BELT SO THAT IT IS OUTSIDE OF THE SIDE BROOM ARM AND INSTALL IT AROUND THE SIDE BROOM PULLEY.
10. ROUTE THE BELT BETWEEN THE (2) WHITE PLASTIC PULLEYS. AS SHOWN IN FIG. 2.
11. INSTALL THE SIDE BROOM ON THE SIDE BROOM ARE USING THE (3) SCREWS AND THE (3) LOCKWASHERS FROM THE HARDWARE PACKAGE.
12. LOWER THE SIDE BROOM ARE AND POSITION THE BELT SO THAT IT RUNS THROUGH THE SIDE BROOM ARM.
13. SCREW THE SIDE BROOM ADJUSTMENT KNOB INTO THE SIDE BROOM ARM, AS SHOWN IN FIG. 1. ADJUST THE KNOB SO THAT ABOUT 1/3 OF THE SIDE BROOM BRISTLES ARE TOUCHING THE FLOOR.
14. LOOSEN THE (2) SCREWS THAT HOLD THE SIDE BROOM BRACKET AGAINST THE CHASSIS. MAKE SURE THAT THE HEIGHT ADJUSTMENT SCREW IS BETWEEN THE EDGES OF THE STOP BRACKET ON THE FRAME. PULL THE SIDE BROOM FORWARD AS FAR AS THE BELT WILL ALLOW, AND TIGHTEN THE SCREWS.

# MAINTENANCE

## ONCE PER MONTH

1. TIP THE MACHINE ON ITS SIDE AND REMOVE ANY STRING THAT IS WRAPPED AROUND THE MAIN SWEEPING BROOM.
2. LUBRICATE THE FRONT CASTER WHEEL WITH LIGHT MACHINE OIL.
3. INSPECT THE RUBBER SKIRT ON THE HOPPER. REPLACE THE SKIRT IF IT IS TORN.

## EVERY 6 MONTHS

1. INSPECT THE RUBBER SKIRTS ON EACH SIDE AND BEHIND THE SWEEPING BROOM. REPLACE THE SKIRT IF IT IS TORN.
2. TIP THE MACHINE ON ITS SIDE AND INSPECT THE MAIN BROOM FOR WEAR. REPLACE THE BROOM WHEN THE BRISTLES ARE WORN TO A LENGTH OF 1½ IN. (38 MM)

## RENEWAL OF THE BROOM ASSEMBLIES

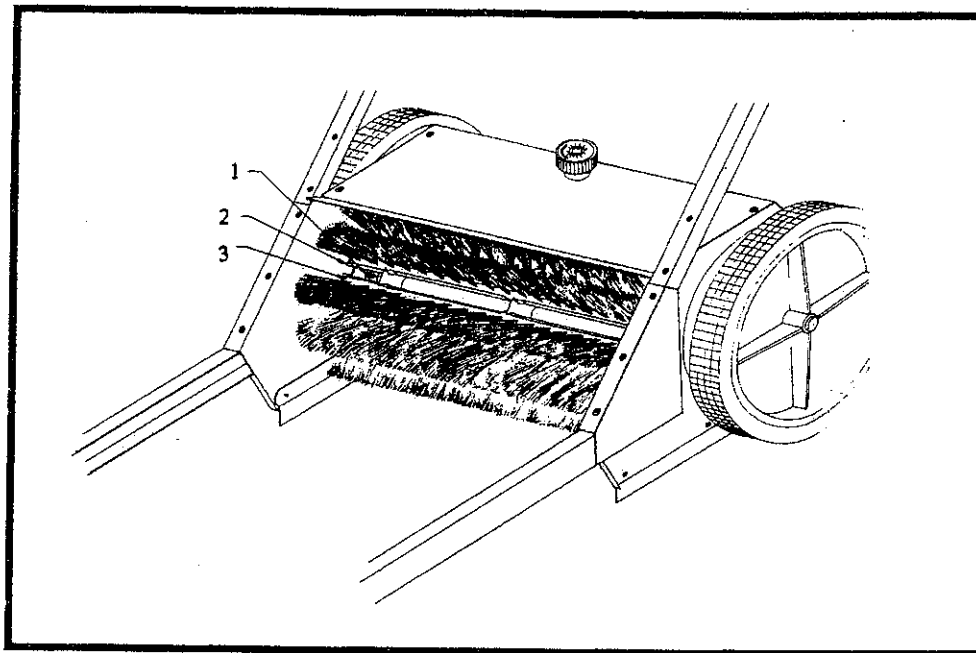
THE BROOM ROLLER CONSISTS OF A BROOM SHAFT WITH THREE BROOM SUPPORTS, ONE LOCK WASHER WITH HOLLOW SCREW AND 10 BROOM ASSEMBLIES, AS FOLLOWS:

5 BROOM ASSEMBLIES WITH BRISTLES OF 0.006 IN. (0.15 MM) -P/N 193488

5 BROOM ASSEMBLIES WITH BRISTLES OF 0.01 IN. (0.25 MM) -P/N 193489

## THE BROOM ASSEMBLIES ARE REPLACED AS DESCRIBED BELOW

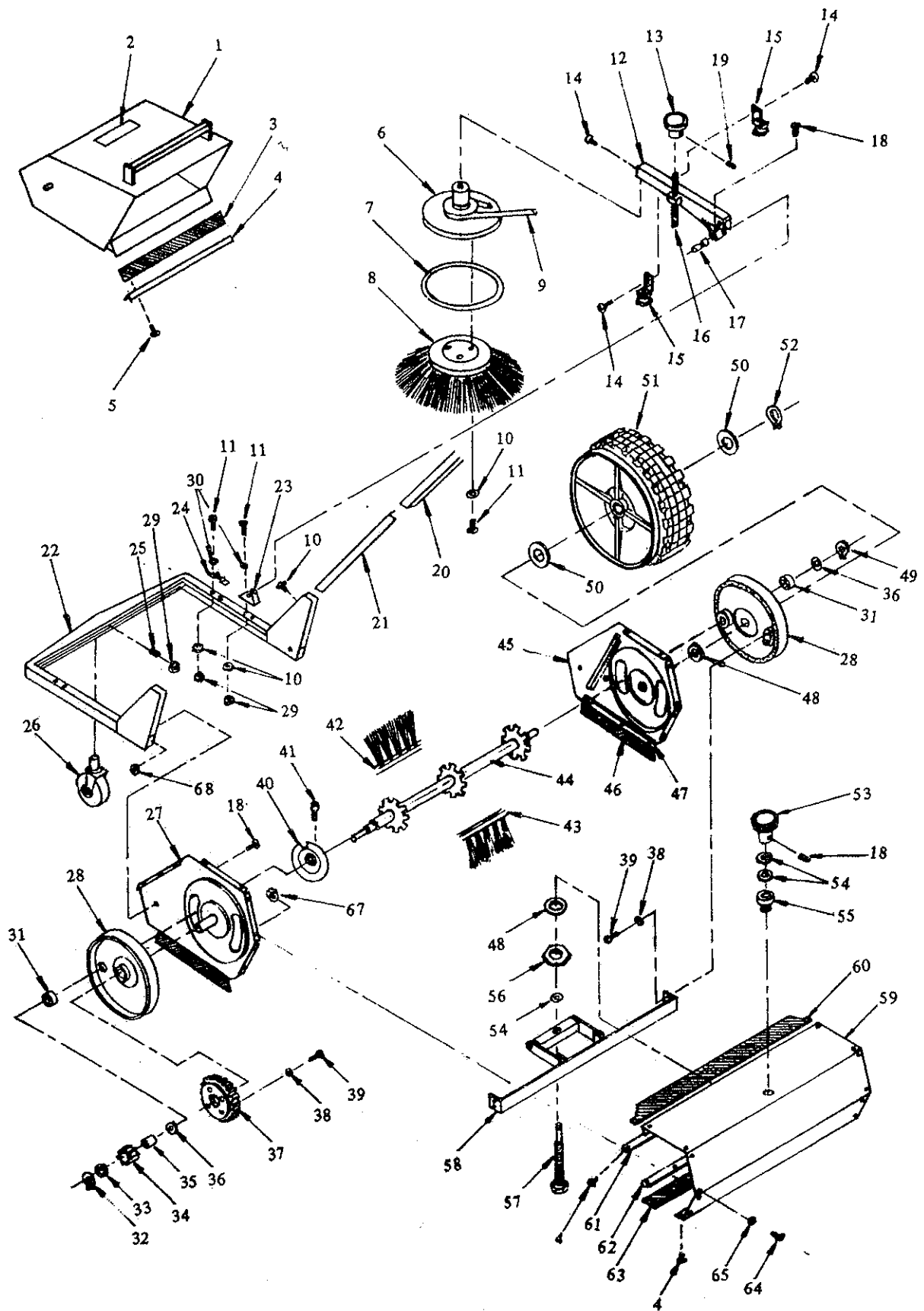
1. UNSCREW THE CAP SCREW (ALLEN KEY, 0.2 IN, -5 MM)
2. TURN LOCKWASHER SLIGHTLY, UNTIL THE NOTCH AND THE END OF THE BROOM ASSEMBLY ARE PLACED NEXT TO EACH OTHER.
3. PULL BROOM ASSEMBLY TO THE LEFT. (BROOM VIEWED FROM THE FRONT END, IN ORDER TO MAKE IT UNLOCK FROM THE BROOM SUPPORTS OF THE BROOM SHAFT AND TO REMOVE IT.
4. TURN ON THE LOCKWASHER AND REMOVE THE FOLLOWING BROOM ASSEMBLY AS DESCRIBED ABOVE.
5. INSERT NEW BROOM ASSEMBLIES WITH BRISTLES OF ALTERNATELY 0.006 IN. (0.15 MM) AND 0.01 IN. (0.25 MM) IN THE REVERSE FASHION.



# PARTS LIST

model: 190-S

ITEM	PART NO	Q'TY	DESCRIPTION	ITEM	PART NO	Q'TY	DESCRIPTION
1	191 316	1	HOPPER ASSEMBLY	34	193 466	1	PINION
2	190 075	1	DECAL	35	193 394	1	CLUTCH
3	196 334	1	SKIRT HOPPER	36	195 118	3	WASHER 2.0 x 17.6 x 32
4	191 344	1	ANGLE	37	193 444	1	GEAR NYLON
5	194 410	30	SCREW M4 x 0.7 x 10	38	195 205	4	M5 SPRING WASHER
6	192 392	1	PULLEY ASSEMBLY	39	194 516	4	SCREW 5 x 16
7	192 384	1	BUMPER, SIDE BROOM	40	193 462	1	BRUSH SUPPORT
8	192 179	1	BROOM, SIDE	41	194 613	1	M6 SOCKET CAP SCREW
9	192 203	1	"V" BELT	42	193 488	5	BRUSH RAILS 0.15 MM
10	195 206	13	M6 SPRING WASHER	43	193 489	5	BRUSH RAILS 0.25 MM
11	194 616	15	SCREW M6 x 16	44	193 464	1	SHAFT
12	192 366	1	ARM, WELDMENT	45	190 456	1	PANEL; RIGHT
13	192 480	1	KNOB, SIDE BROOM	46	197 484	2	SKIRT, SIDE
14	194 612	16	SCREW M6 x 12	47	190 486	2	PLATE, SKIRT
15	192 406	2	IDLER ASSEMBLY	48	195 121	3	WASHER 2.0 x 21.1 x 40.1
16	192 414	1	STUD. ADJUSTMENT	49	199 017	1	RING S-17
17	192 418	1	PIN. ARM	50	195 117	4	WASHER 2.0 x 16.4 x 32
18	194 510	5	SCREW, M5 x 0.8 x 10	51	190 432	2	TIRE 12"
19	194 613	2	SOCKET SET 10-24 x 1/2	52	199 016	2	RING S-16
20	190 256	1	HANDLE	53	192 481	1	KNOB, MAIN BROOM
21	190 264	2	ANGLE HANDLE	54	195 111	3	WASHER 1.2 x 10.5 x 25.4
22	190 288	1	FRAME WELDMENT	55	193 474	1	PIVOT ASSEMBLY
23	190 252	1	BRACKET, SIDE BROOM	56	196 019	1	NUT 1/2 PT.
24	190 260	2	GUIDE, HOPPER	57	193 478	1	STUD. ADJUSTMENT
25	194 713	1	SOCKET SET 1/4-20 x 1/2	58	193 350	1	BRACKET
26	190 252	1	CASTER 3" ASSEMBLY	59	190 482	1	PANEL, COVER
27	190 446	1	PANEL, LEFT	60	197 468	1	SKIRT, HOPPER
28	190 440	2	SHROUD	61	190 470	1	PLATE
29	196 601	7	NUT, M6 x 1.0	62	190 494	1	PANEL, SKIRT
30	195 106	6	FLAT WASHER M6	63	197 492	1	SKIRT
31	198 203	3	BEARING, 620322 ZZ	64	194 408	12	SCREW M4 x 0.7
32	199 012	1	RING S-12	65	195 304	12	WASHER, HOPPER
33	195 113	1	WASHER 1.5 x 13.1 x 23				



# SPECIFICATION

<b>MODEL</b>	190-S
<b>SWEEPING WIDTH</b>	27" WITH SIDE BROOM
<b>MAIN BROOM</b>	10" DIA. X 19" LONG-ADJUSTABLE HEIGHT
<b>SIDE BROOM</b>	13" DIA. POLYPROPYLENE BRISTLES ADJUSTABLE HEIGHT.
<b>HOPPER CAPACITY</b>	40 L. = 10 GAL.
<b>WHEELS</b>	12" SEMI-PNEUMATIC, NON-SLIP TIRES
<b>CASTERS</b>	3" DIA. BUBBER, HEAVY-DUTY BALL BEARING
<b>DIMENSIONS</b>	HEIGHT 36" (FLOOR/TOP OF HANDLE) WIDTH 30-3/8" (WHEEL/OUTSIDE OF SIDE BROOM) LENGTH 53" (HANDLE/SIDE BROOM) 41" (EXCLUDING HANDLE)
<b>OUTPUT</b>	2000 M <sup>2</sup> /HOUR
<b>UNIT WEIGHT</b>	71 LBS.
<b>SHIPPING DIMENSIONS</b>	35-7/8" x 28-3/8" x 7-3/4"
<b>SHIPPING WEIGHT</b>	82.5 LBS.