



# Parts Catalog

## Kleen Sweep 27R (HM27R)

### Walk-Behind Sweeper

## **PREFACE**

Thank you for your purchase of the new industry standard for floor sweepers. Minuteman International<sup>®</sup> takes great pride in offering the most dependable, reliable and best value in industrial sweepers. We set the standard.

Our Customer Service Department would like to hear from you. If you see any errors, omissions or something that needs clarification in this Parts Catalog please let us know. We are working hard towards continually improving our processes to bring you the best you deserve. Please copy the form below, fill out and comment on how you found our catalog.

Thank you!

*The Minuteman International Team*

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

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

Country: \_\_\_\_\_

Type of equipment or model number: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please return to:

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Minuteman International, Inc.  
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Pingree Grove, Illinois 60140 USA

Phone: (800) 323-9420

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## TECHNICAL SPECIFICATIONS

Model: Kleen Sweep 27 Walk-Behind Sweeper  
Model No.: HM27R

|                                            |                                   |
|--------------------------------------------|-----------------------------------|
| <b>Sweeping Width (with side broom)</b>    | <b>26 inches</b>                  |
| <b>Sweeping Width (without side broom)</b> | <b>18 inches</b>                  |
| <b>Theoretical area coverage</b>           | <b>27,986 ft<sup>2</sup> / hr</b> |
| <b>Dirt Hopper Capacity</b>                | <b>10.5 gallons</b>               |
| <b>Length (without / with side broom)</b>  | <b>31.5 / 40 inches</b>           |
| <b>Width (without / with side broom)</b>   | <b>28.5 / 31 inches</b>           |
| <b>Height (without / with handle)</b>      | <b>16 / 40 inches</b>             |
| <b>Weight</b>                              | <b>51 pounds</b>                  |

This is the Parts Catalog for the Minuteman International® HM27R Walk-Behind Sweeper machines.

This catalog covers all Standard HM27R machine variations.

We believe this machine will provide excellent service for many years. Best results will be obtained if:

- The machine is operated with reasonable care.
- The machine is maintained regularly per the maintenance schedule provided.
- The machine is maintained with Minuteman International® supplied or equivalent parts.

All information contained in this catalog is current at the time of printing.

Minuteman International, Inc. reserves the right to make changes at any time without notice.

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**TABLE OF CONTENTS**

**PREFACE.....2**

**TECHNICAL SPECIFICATIONS .....3**

**PROPER USE .....5**

**GENERAL SAFETY INSTRUCTIONS.....6**

**FIRST OPERATION .....7**

**MACHINE OPERATION .....8**

**MAINTENANCE.....9**

**PARTS BREAKDOWN .....10**

**FRAME, COVER AND PLATE ASSEMBLY.....10**

**RUBBER SEALING STRIPS.....11**

**BRUSH SHAFT ASSEMBLY.....12**

**GEAR ASSEMBLY.....13**

**HANDLE ASSEMBLY .....14**

**MAIN BROOM ASSEMBLY .....15**

**HOPPER ASSEMBLY .....16**

**SIDE BROOM ASSEMBLY COMPLETE .....18**

## **PROPER USE**

### ***Proper Use***

This machine has been exclusively designed for floor cleaning, such as dry sweeping. Use of the product beyond the specified range is deemed improper and the manufacturer cannot be held liable for consequential damages.

The terms of proper use also includes compliance with the manufacturer's instructions on the operation, maintenance and repair of the product.

This machine may be used, serviced and repaired only by persons who are familiar with the machine and are aware of possible hazards involved. The appropriate Accident Prevention Regulations as well as applicable general regulations about safety and health at work must be complied with.

Modifications made to machine in the absence of the manufacturer's consent will relieve the manufacturer from possible liability for consequential damage.



***This machine is not suitable for evacuation of dusts, which are explosive or dangerous to health.***

### **Acceptance of the machine**

As soon as the machine arrives, Please check for any transport damage. In the event of any damage, it is the purchaser's responsibility to send a claim letter to the particular Minuteman Branch / Dealer with a copy of invoice. The letter should be sent within 24 hours after the goods were delivered.

## GENERAL SAFETY INSTRUCTIONS

### Safety & Warning Symbols

All paragraphs in this manual referring to you personal safety, the safety of your machine and the environment protection are attributed one of the following warning symbols.

| Symbol<br>(Hazardous for)                                                                                                     | Description                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Safety Provisions<br>(persons and goods)<br> | Safety provisions in dangerous situation caused by misuse inaccurate adherence of instruction or prescribed work routine. |
| Caution<br>(the machine)<br>                 | Important information on handling the machine in order to maintain operability.                                           |
| Ecological hazard<br>(the environment)<br>   | Due to use of substances representing an inherent danger to health of environment.                                        |
| Read Manual<br>                            | Prior to first operation, read the manual carefully and strictly comply with the instructions contained.                  |

### Safety Instructions

- Apart from information contained in this manual, generally applicable legal provisions for safety and prevention of accidents must be adhered to.
- Do not put this manual aside without having read it, even if you have already operated similar ground cleaning equipment before.
- Allow yourself the time to do so in order to save time at a later time.
- The operator is responsible for all persons in the working area.
- Children must be kept away from the machine during operation.
- No person must be allowed to stay in the zone of danger.
- The warning and instruction plates attached to machine give important advice on safe operation.
- Replace lost or illegible stickers.
- Before starting to work, the operator has to check that the machine and its working implements are in proper and safe operating condition.
- Machines with known defects must not be used.
- It is important for operators and all persons likely to use the product, to familiarize themselves with all accessories and controls, as well as their functions, before starting operations.

- Abiding by the above general instructions can help
- you avoid having to read this book while trying to run
- the machine.

### Safety during machine operation

- Ground cleaning machines may be run by qualified personnel only.
- The machine may be used for cleaning such surfaces approved by the owner or this authorized representative.
- The operator must use the machine in accordance to its intended fields of application.
- During operation, the operator must take account of local conditions (stairs, obstacles) and of other persons, particularly children.

 Use only genuine spare brooms as specified by the manufacturer. Use of other than the indicated broom types may affect safety.

 *Never collect explosive fluids, undiluted acids and solvents. This includes e.g. gasoline paint thinners or fuel oil, which-when combined with air, may form explosive vapors or mixtures. Acetone, undiluted acids and solvents can be aggressive to the material used for the machine components.*

 *The machine may be used only on indoor hard floorings and for operation on level grounds with a maximum inclination of up to 2%.*

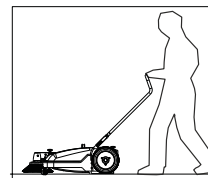
 - Do not clean the machine by means of vapour jet or high pressure cleaning equipment.  
- Do not USE the machine on steps.

- Use of the machine in areas prone to explosion hazards is strictly forbidden.

### Transport

- Incorrect lifting techniques may create an personal injury, When transporting the machine ensure that all components and removable parts are securely fastened.
- Do not lift or transport the machine whilst containing dirt as this will add considerable weight.
- Take extreme care when moving the machine up or down steps or stairs.

 *Bumping over thresholds, kerbs and similar obstacles can damage the machine. Small obstacles can be overcome by pulling the machine backwards.*



## FIRST OPERATION

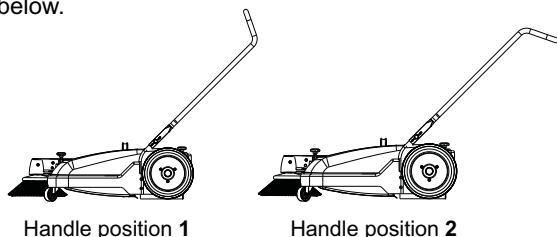
This machine is exclusively designed for Dry Sweeping on Solid, Level and Dry surfaces.



### Assembly

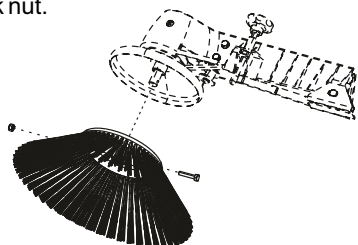
For ease of packing, the handle and side broom assembly are packed separately. These parts must be installed before the machine is put into operation. The handle is mounted by means of knobs.

Handle can be fixed in two different positions as shown below.

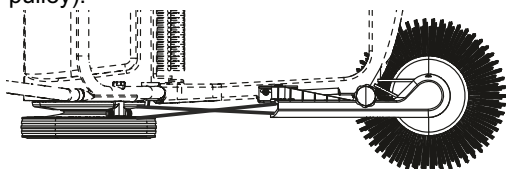


### Side Broom Assembly

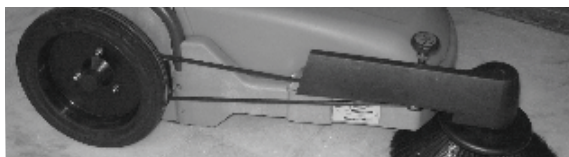
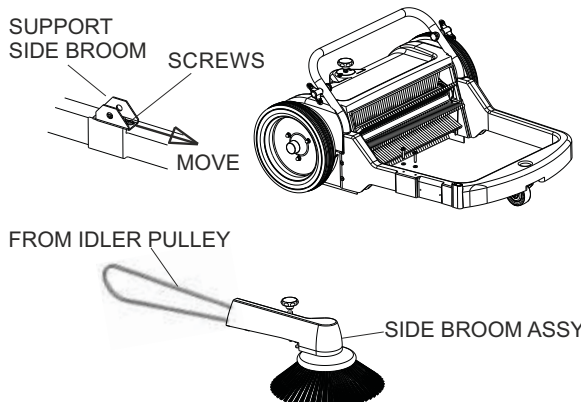
- Mount the side broom to the broom plate on the side arm assembly using Hex Head Bolt and Nylock nut.



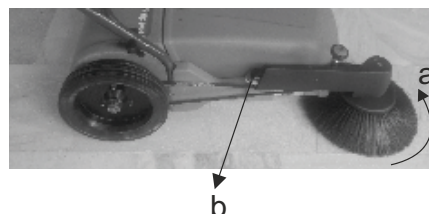
- Position the V-Belt from the side arm assembly around the pulley attached to the backside of the right wheel. In order to do this it will be necessary to twist the V-Belt. The lower loop of the v-belt should be coming from the idler pulley (not from the broom pulley).



- To attach the side arm assembly to the main frame remove the two screws that have already been inserted into the right side of the main frame.
- Place the V-Belt on to the drive pulley on the wheel, adjust the arm assembly forwards or backwards for the desired tension. Fasten the arm assembly by tightening the screws. Check the broom for free rotation.

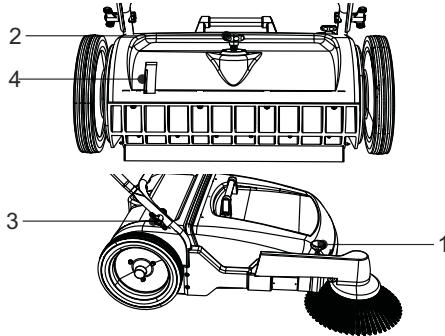


- Check for proper rotation and operation of the side broom. The broom should rotate counter clockwise(a) when the sweeper is pushed forward-if not the V-Belt was installed incorrectly. If the belt slips the tension can be adjusted by loosening the 2 screws(b) that attach the support side broom to the frame, move the bracket forward, then re-tighten the screws.



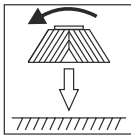
## MACHINE OPERATION

### Controls



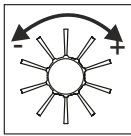
#### 1. Pressure Adjustment Knob for Side Broom

- Used for setting of the side broom pressure. The side broom may touch the floor only by its one third section, so as to throw the swept matter into the machine.
- The castor wheel is to keep the pre-set working height of the side broom.



#### 2. Pressure adjustment knob for Main Broom

- Used for setting of the main broom pressure. The pressure must be set so as to assure perfect cleaning operation.



 *Excess pressure will cause unnecessary wear of the broom and increased load for the operator.*

#### 3. Knobs

- Used to secure the handle to the machine or to reposition it.

#### 4. Main Broom Pressure Reading Scale

Indicates the pressure at which the main broom has been set. Setting must be performed as described below :

- Set the main broom by turning the knob clock-wise to increase the pressure, at this position the scale should read '5'.
- Starting with this setting, the main broom pressure can be increased to meet the requirement. (As the broom wears out)
- Turn the knob in counter-clockwise direction to reduce the main broom pressure according to the requirement.



### MACHINE OPERATION

The machine operates with two brooms. The side broom takes dirt from the side into the reach of the main broom. The main broom maintains its direction of rotation to throw the dirt into the hopper in forward direction of the machine. To use the machine, simply push it at a normal walking speed.

#### Overcoming Obstacles

In case of normal obstacles coming in the way of sweeping the machine should be pressed down at the handle. This will cause the two brooms to lift off from the floor and the machine can easily surmount these obstacles.

#### Emptying of Dirt Hopper

The dirt hopper can be easily lifted by using the handle provided. The dirt hopper is secured to the machine by means of the frame. The dirt hopper must be in direct contact with the broom compartment in order to prevent leakage of dirt.

#### Renewal of Broom Assemblies

The main broom consists of a broom shaft with two broom core assemblies fastened with six self tapping screws.

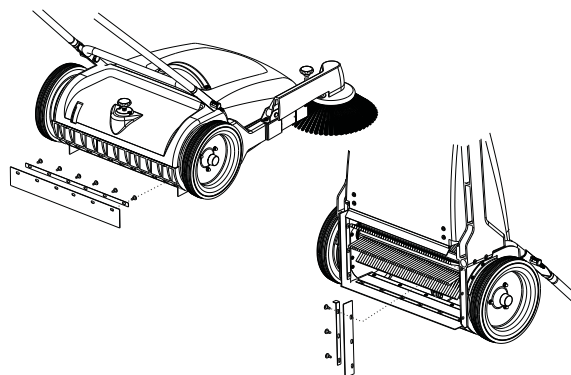
The broom cores can be replaced as below:

- Unscrew the self tapping screws.
- Pull the broom core assembly to the front (broom viewed from user side) to remove it from the broom shaft.

 *When reassembly of the broom ensure the split pins are fixed in the holes to guide the broom.*

#### Rubber Sealing Aprons

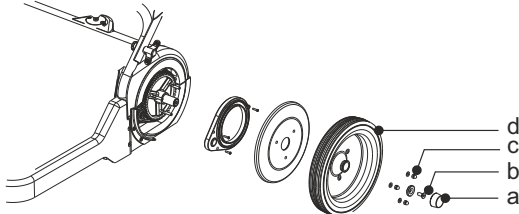
The rubber aprons avoid leaking of the dust produced by the broom. Damaged or used aprons cannot fulfil this task any longer and must be replaced.



## MAINTENANCE

### Greasing of the Main Wheels

For cleaning and greasing of the wheel axle and the gear ring, the main wheels must be removed as described below.



- Remove hood (a), remove the bolt (b) and domed cap nut (c) from the wheel (d) and pull the main wheel.
- Unscrew the gear cover and apply grease in the gear area.
- Reposition the main wheel.

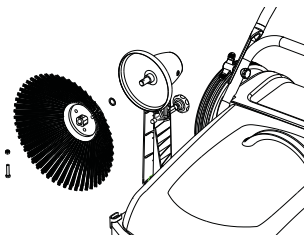
### Replacement and Tensioning of the V-belt

- Lift up the side broom arm.
- Loosen the clamp screw and pull out the side broom from the broom arm.
- Place the V-belt through the broom arm and put it on the V-belt pulley on the broom shaft.
- Push the side broom back into the broom arm and re-tighten the clamp screw.
- Place V-belt into the groove of the right-hand main wheel.

When the broom arm is lowered down, the V-belt must be tensioned so as to allow a perfect drive transmission, if necessary re-tighten by shifting of the side broom arm bearing.

### Replacement of the Side Broom

The side broom can be replaced after removing hex-bolts from the side broom axle.



### Regaining of Bristles

If the bristles have been bent inwards in transit the side broom must be placed on a flat base, the bristles pointing outward and a weight must be placed on the plate. The bristles will regain their correct position gradually.

If the bristles have been bent outwards, bring them together apply a rubber band around the bristles and

allow it to stay for sometime. The bristles will regain their correct position gradually.

### Maintenance Works

Compliance with our operating and maintenance instructions will ensure trouble free and smooth operation of the machine we have supplied.

The machine requires minimum maintenance apart from the checks by the operator such as Dirt hopper, Brooms, V-Belt.

### Maintenance Intervals

- |         |                                                                                                                     |
|---------|---------------------------------------------------------------------------------------------------------------------|
| Daily   | - empty dirt hopper.<br>- clean the unit.<br>- check Brooms and Sealing Aprons.                                     |
| Weekly  | - remove the ropes, tapes etc entangled in the main broom shaft.<br>- clean & lubricate.<br>- trunnion - main broom |
| Monthly | - grease the main wheels, check the caster wheel<br>- check V-belt tension, if necessary, re-tighten.               |

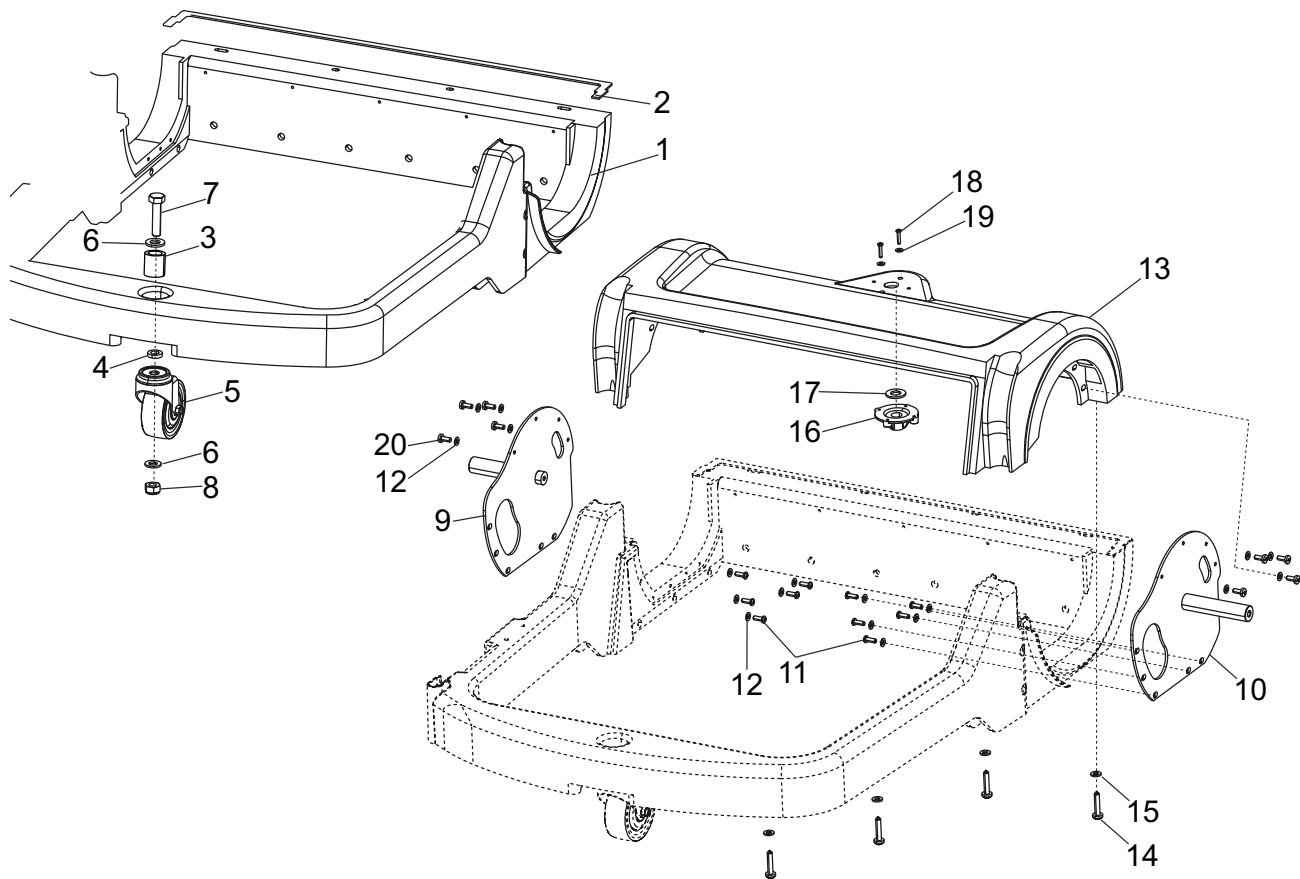
### Maintenance Chart

| MAINTENANCE                                        |                 |          |           |           |
|----------------------------------------------------|-----------------|----------|-----------|-----------|
| Maintenance Works                                  | Operating Hours |          |           |           |
|                                                    | Daily           | Every 50 | Every 100 | Every 200 |
| Check Main & Side Broom pressure                   | ●               |          |           |           |
| Check Rubber Sealing Aprons in frame & dirt hopper | ●               |          |           |           |
| Check Gear, Gearing & Pinion                       |                 |          |           | ●         |

### Troubleshooting

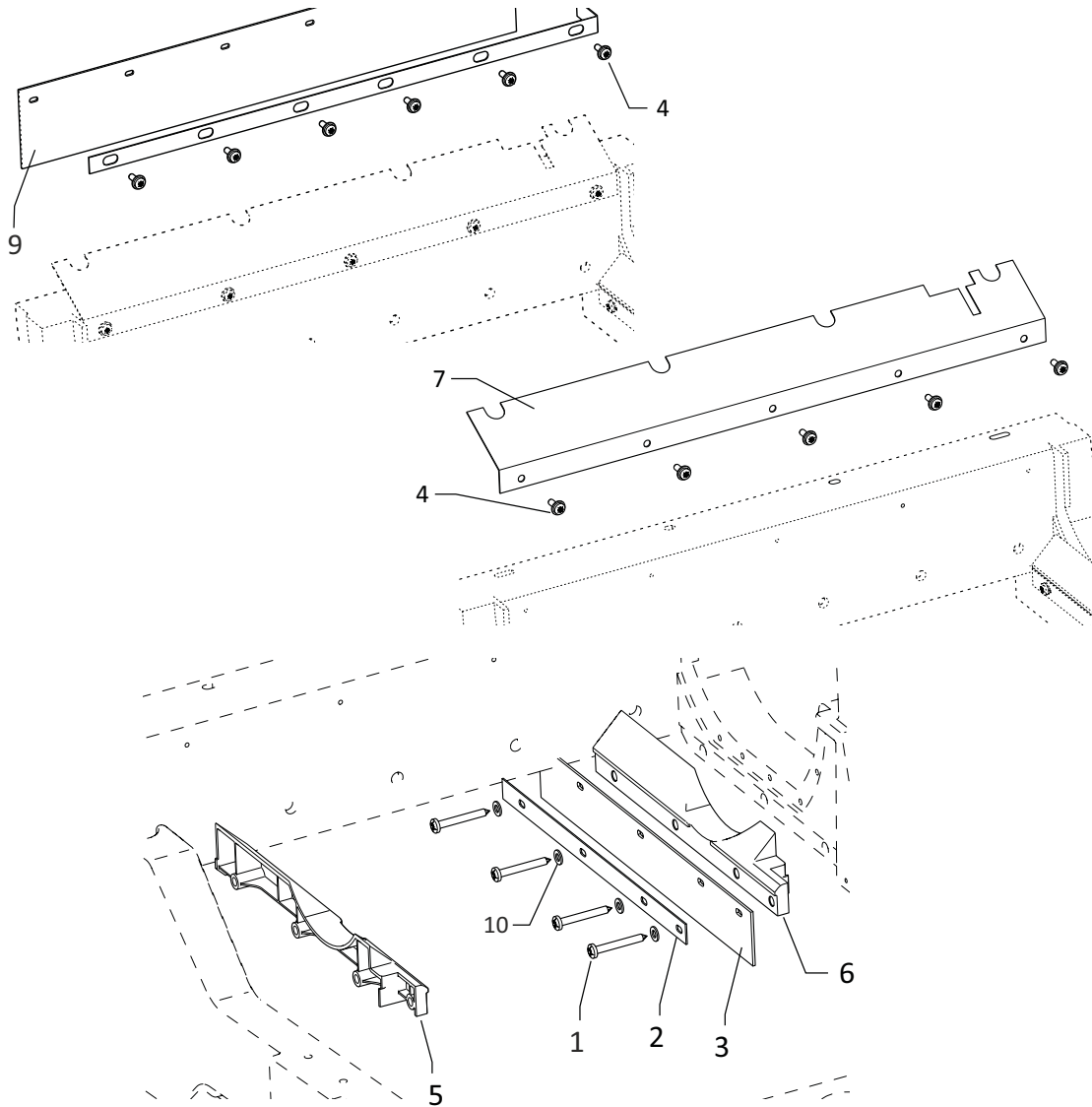
| TROUBLE                                | REMEDIAL ACTION                                                                                |
|----------------------------------------|------------------------------------------------------------------------------------------------|
| Machine hard to push/pull              | Decrease main broom pressure<br>setting grease main wheels                                     |
| Sweeping unsatisfactory                | Increase Main/Side broom Pressure<br>clean Main/Side broom check Main broom for loose bristles |
| Traces of dirt left behind the machine | Check side/rear rubber aprons.                                                                 |
| Side Broom not rotating                | Check V- Belt for transmission.                                                                |

## PARTS BREAKDOWN FRAME, COVER AND PLATE ASSEMBLY



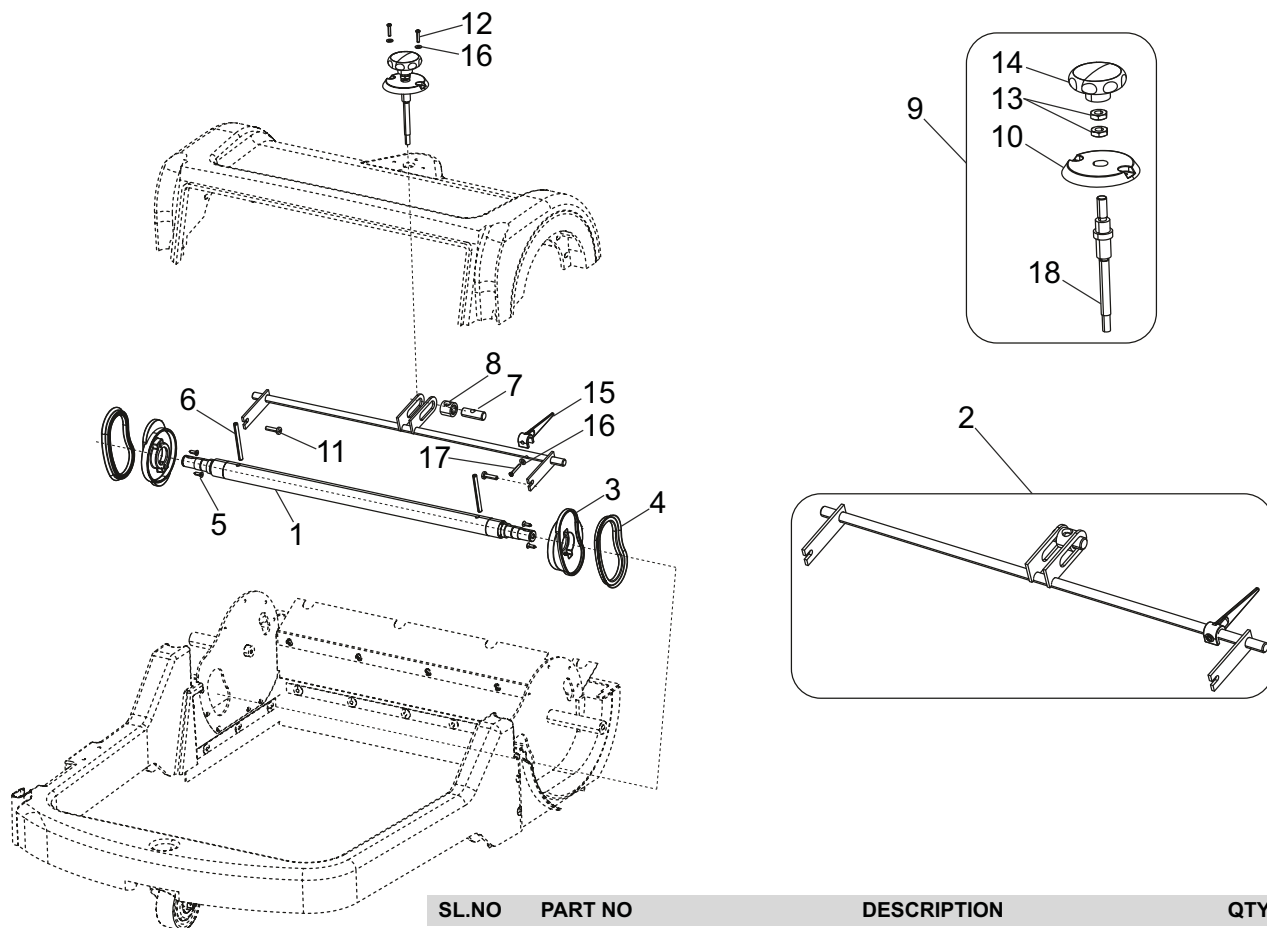
| SL.NO | PART NO   | DESCRIPTION                       | QTY |
|-------|-----------|-----------------------------------|-----|
| 1     | 552130007 | FRAME                             | 1   |
| 2     | 923255    | GASKET FRAME                      | 1   |
| 3     | 922130    | SLEEVE - GROMMET                  | 1   |
| 4     | 552350021 | WASHER STEEL - 10.6X18.0X4.0      | 1   |
| 5     | 922824    | CASTOR WHEEL ASSY                 | 1   |
| 6     | 844082    | WASHER STEEL - 8.4X24X2.0         | 2   |
| 7     | 552020040 | HEX HEAD SCREW - M8X45            | 1   |
| 8     | 859086    | HEX NYLOCK NUT - M8               | 1   |
| 9     | 552180035 | SIDE PLATE GROUP RH               | 1   |
| 10    | 552180034 | SIDE PLATE GROUP LH               | 1   |
| 11    | 837210    | CRPH SELF TAPPING SCREW - 4.8X13  | 10  |
| 12    | 844051    | WASHER STEEL - 5.3X10.0X1.0       | 18  |
| 13    | 552130008 | COVER                             | 1   |
| 14    | 835709    | CRPH SELF TAPPING SCREW - 6.3X30  | 4   |
| 15    | 844061    | WASHER STEEL - 6.4X12.5X1.6       | 4   |
| 16    | 552130084 | BOTTOM COVER THREAD ROD           | 1   |
| 17    | 552350046 | WASHER - STEEL - 12.5X24X2.0      | 1   |
| 18    | 836206    | CRPH SELF TAPPING SCREW - 3.5X16  | 2   |
| 19    | 844041    | WASHER STEEL - 4.3X9.0X0.8        | 2   |
| 20    | 817204    | CR PAN HEAD SCREW - STEEL - M5X12 | 8   |

## RUBBER SEALING STRIPS



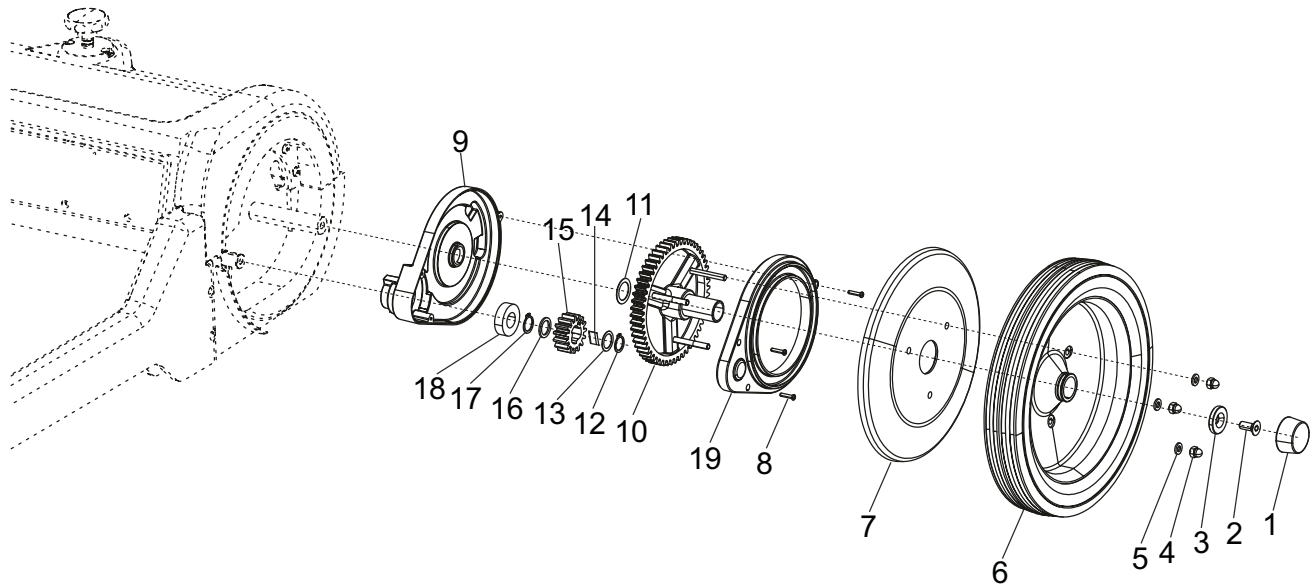
| SL.NO | PART NO   | DESCRIPTION                          | QTY |
|-------|-----------|--------------------------------------|-----|
| 1     | 835708    | CRPH SELF TAPPING SCREW-STEEL-4.8X40 | 8   |
| 2     | 553210239 | SIDE STRIP HOLDER                    | 2   |
| 3     | 553210224 | SIDE RUBBER STRIP                    | 2   |
| 4     | 921131    | SELF TAPPING SCREW W/COLLAR 4.8X13   | 11  |
| 5     | 553210230 | RUBBER STRIP HOLDER RH               | 1   |
| 6     | 553210231 | RUBBER STRIP HOLDER LH               | 1   |
| 7     | 552130051 | SPLASH SHIELD                        | 1   |
| 8     | 553210227 | REAR STRIP HOLDER                    | 1   |
| 9     | 553210240 | REAR RUBBER STRIP                    | 1   |
| 10    | 844051    | WASHER STEEL-5.3X10.0X1.0            | 8   |

## BRUSH SHAFT ASSEMBLY



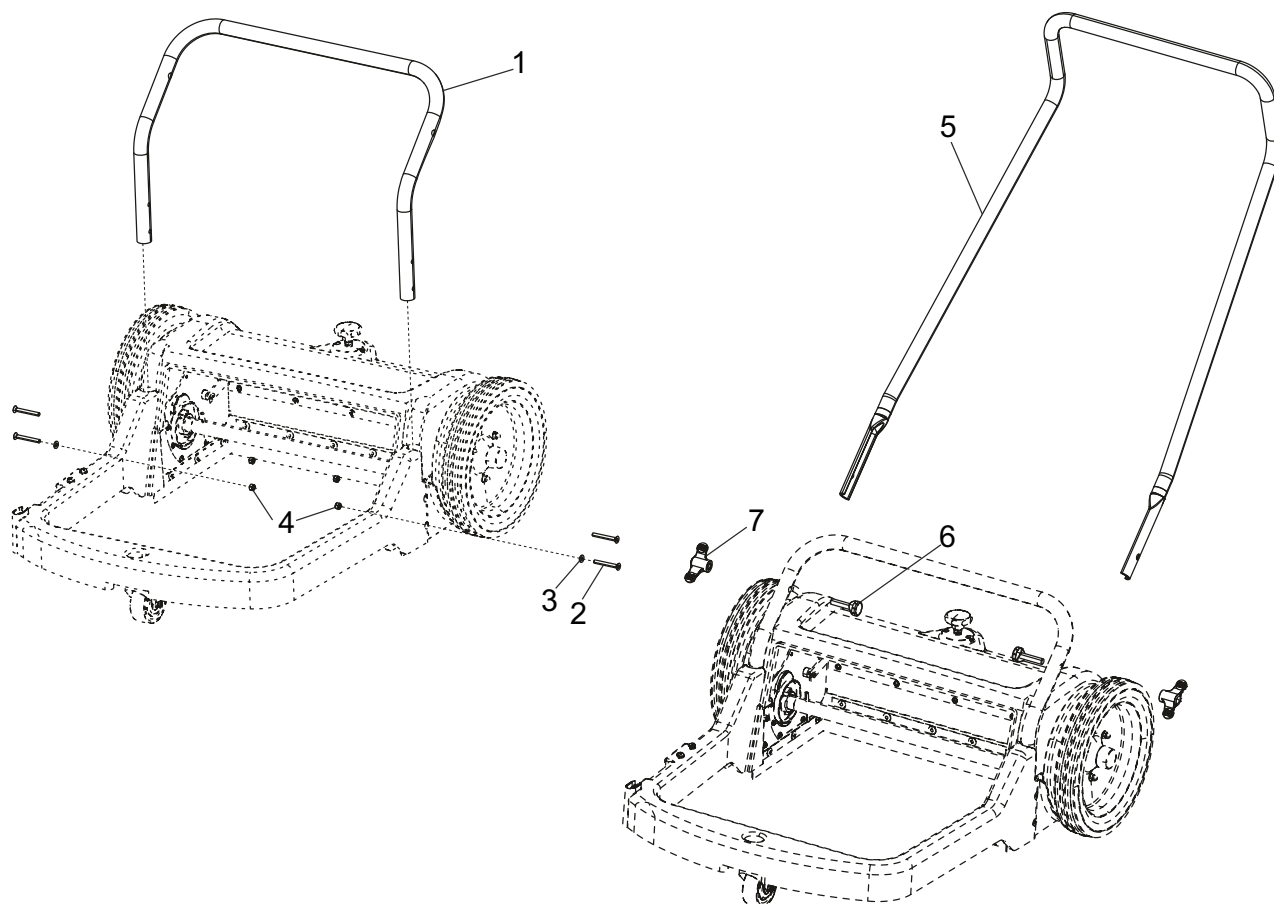
| SL.NO | PART NO   | DESCRIPTION                                | QTY |
|-------|-----------|--------------------------------------------|-----|
| 1     | 552180031 | BRUSH SHAFT GROUP                          | 1   |
| 2     | 552180033 | PRESSURE ADJUSTMENT GROUP                  | 1   |
| 3     | 552130079 | BOOT                                       | 2   |
| 4     | 552130080 | SEAL                                       | 2   |
| 5     | 841110    | CRCSK SELF TAPPING SCREW- STEEL - 3.5X12.7 | 4   |
| 6     | 552130056 | SPLIT PIN – 63                             | 2   |
| 7     | 552130039 | TRUNNION SHAFT                             | 1   |
| 8     | 552130092 | SPACER THREAD ROD                          | 1   |
| 9     | 552180029 | THREAD ROD ASSY                            | 1   |
| 10    | 552130085 | TOP COVER THREAD ROD                       | 1   |
| 11    | 817207    | CR PAN HEAD SCREW STEEL - M5X20            | 2   |
| 12    | 926057    | CRPH SELF TAPPING SCREW - 3.5X16           | 2   |
| 13    | 833084    | HEX LOCK NUT STEEL - M8                    | 2   |
| 14    | 558210109 | TOP KNOB ASSY                              | 1   |
| 15    | 552130089 | INDICATOR                                  | 1   |
| 16    | 844041    | WASHER STEEL - 4.3X9.0X0.8                 | 3   |
| 17    | 836210    | CRPH SELF TAP SCREW - 3.5X25               | 1   |
| 18    | 552180036 | THREAD ROD GROUP                           | 1   |

## GEAR ASSEMBLY



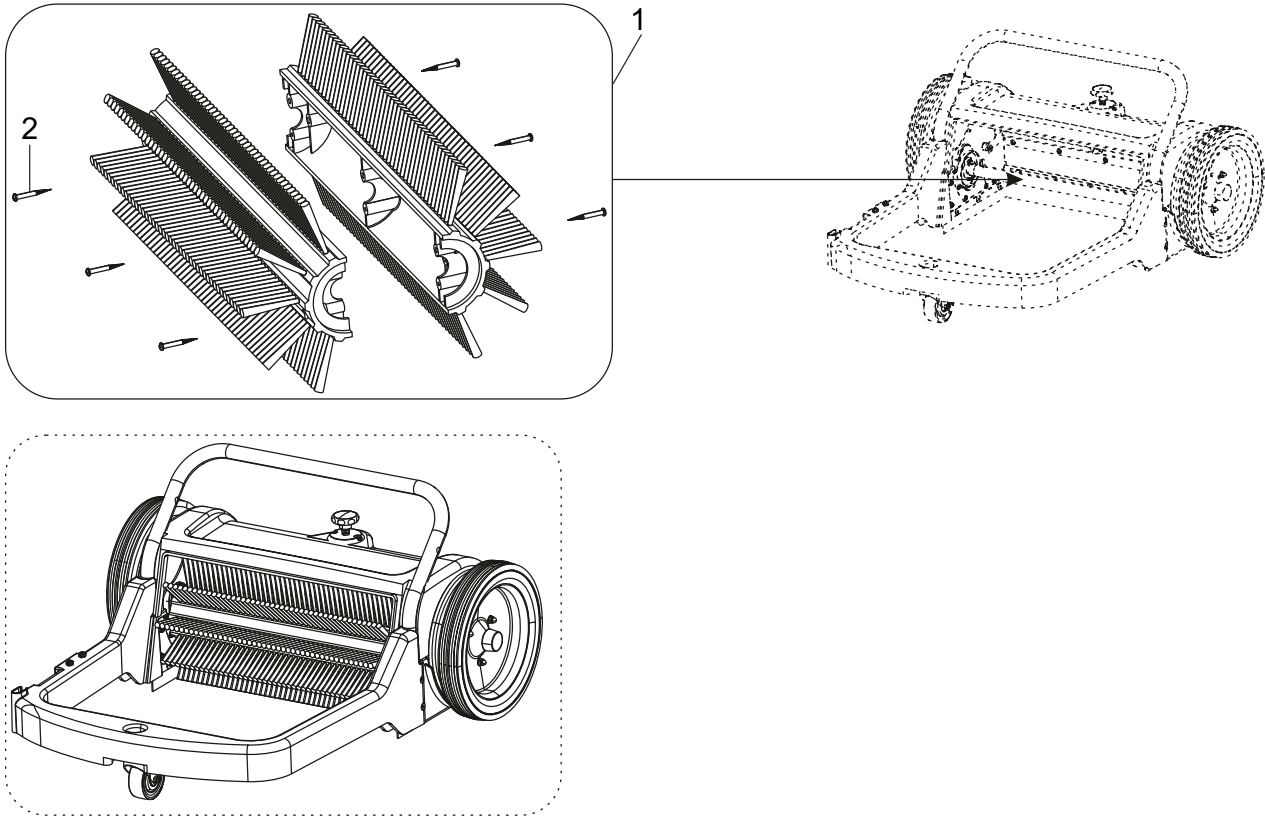
| SL NO | PART NO   | DESCRIPTION                          | QTY |
|-------|-----------|--------------------------------------|-----|
| 1     | 552130067 | WHEEL CAP                            | 2   |
| 2     | 831516    | HEX SOC HEAD CAP SCREW -STEEL -M8X20 | 2   |
| 3     | 844082    | WASHER-STEEL-8.4X24X2                | 2   |
| 4     | 552300005 | DOMED CAP NUT - STEEL - M6           | 6   |
| 5     | 844061    | WASHER-STEEL - 6.4X12.5X1.6          | 6   |
| 6     | 552180022 | TYRE ASSY                            | 2   |
| 7     | 552130081 | PROTECTION DISK                      | 2   |
| 8     | 926057    | CRPH SELF TAPPING SCREW - 3.5X16     | 6   |
| 9     | 552130082 | GEAR COVER BOTTOM                    | 2   |
| 10    | 558210120 | GEAR ASSY                            | 2   |
| 11    | 552130078 | WASHER STEEL - 20X28X0.5             | 2   |
| 12    | 923429    | CIRCLIP EXTERNAL - A 16              | 2   |
| 13    | 921066    | WASHER - STEEL - 16X22X0.5           | 2   |
| 14    | 921006    | KEY                                  | 2   |
| 15    | 552130044 | PINION                               | 2   |
| 16    | 921065    | WASHER - STEEL - 16X22X1.5           | 2   |
| 17    | 923422    | CIRCLIP EXTERNAL - A 17              | 2   |
| 18    | 875010    | DG BALL BEARING 6003 2 RS            | 2   |
| 19    | 552130083 | GEAR COVER                           | 2   |

## HANDLE ASSEMBLY



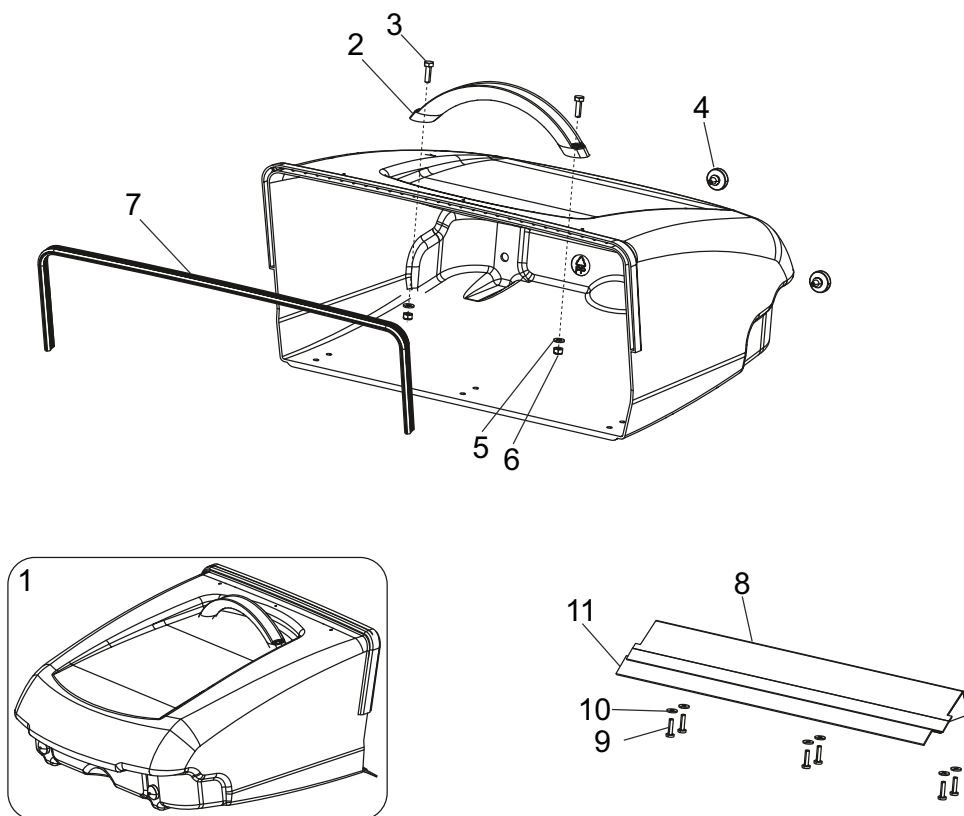
| SLNO | PART NO   | DESCRIPTION                           | QTY |
|------|-----------|---------------------------------------|-----|
| 1    | 552130055 | HANDLE                                | 1   |
| 2    | 828512    | HEX SOC CSK HEAD SCREW- STEEL - M6X45 | 4   |
| 3    | 844061    | WASHER STEEL - 6.4X12.5X1.6           | 4   |
| 4    | 859068    | HEX NYLOCK NUT-STEEL GR.8 -M6         | 4   |
| 5    | 552130057 | UPPER HANDLE                          | 1   |
| 6    | 552130062 | KNOB ASSY MALE                        | 2   |
| 7    | 927872    | KNOB-HANDLE                           | 2   |

## MAIN BROOM ASSEMBLY



| SL. NO | PART NO   | DESCRIPTION                            | QTY |
|--------|-----------|----------------------------------------|-----|
| 1      | 552180026 | MAIN BRUSH                             | 1   |
| 2      | 835708    | CRPH SELF TAPPING SCREW-STEEL - 4.8X40 | 6   |

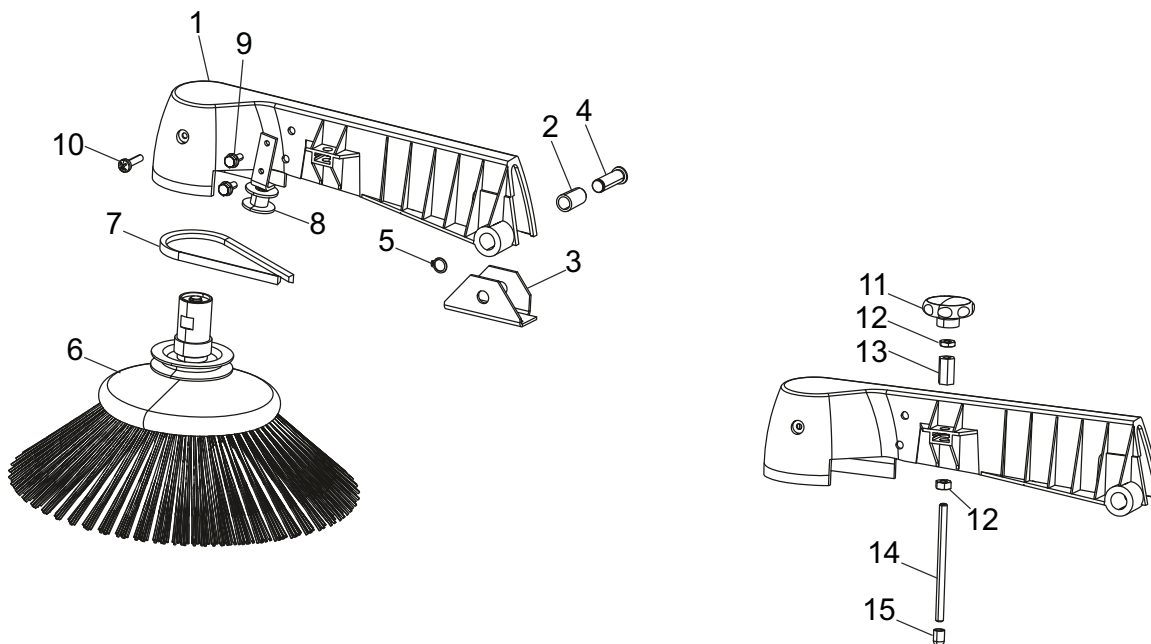
## HOPPER ASSEMBLY



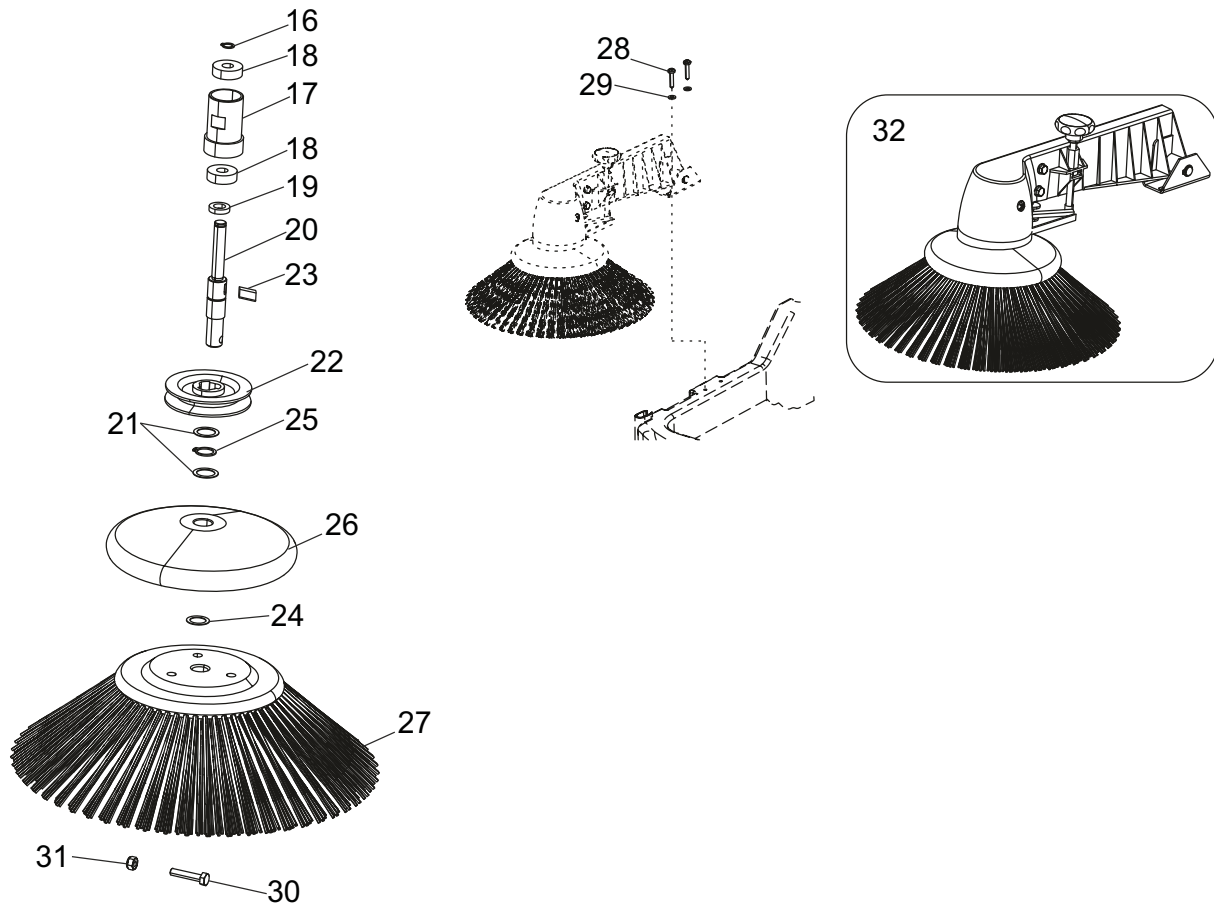
| SL. NO | PART NO   | DESCRIPTION                 | QTY |
|--------|-----------|-----------------------------|-----|
| 1      | 558210083 | HOPPER ASSEMBLY - KS 27     | 1   |
| 2      | 552130060 | HANDLE                      | 1   |
| 3      | 802306    | HEX HEAD SCREW - M6X20      | 2   |
| 4      | 553210228 | BOOT FRONT                  | 2   |
| 5      | 844061    | WASHER STEEL - 6.4X12.5X1.6 | 2   |
| 6      | 859066    | HEX NYLOCK NUT - M6         | 2   |
| 7      | 552130100 | GASKET HOPPER               | 1   |
| 8      | 558210128 | HOPPER FLAP ASSY            | 1   |
| 9      | 817204    | CR PAN HEAD SCREW - M5X12   | 6   |
| 10     | 999161    | WASHER STEEL - 5.3X13X1.0   | 6   |
| 11     | 553210241 | HOPPER RUBBER STRIP         | 1   |

**NOTES**

## SIDE BROOM ASSEMBLY COMPLETE



| SL. NO | PART NO   | DESCRIPTION                         | QTY |
|--------|-----------|-------------------------------------|-----|
| 1      | 552130014 | MOLDED SIDE ARM                     | 1   |
| 2      | 921107    | TAPER BUSH SIDE BROOM ARM           | 1   |
| 3      | 921017    | SUPPORT SIDE BROOM ARM              | 1   |
| 4      | 921013    | CLEVIS PIN SIDE BROOM ARM           | 1   |
| 5      | 923418    | CIRCLIP EXTERNAL - A 12             | 1   |
| 6      | 921821    | SIDE BROOM ASSY COMPLETE            | 1   |
| 7      | 921103    | V-BELT                              | 1   |
| 8      | 921788    | IDLER BRACKET ASSY                  | 1   |
| 9      | 921133    | HEX HEAD SCREW – M6x16/13 mm COLLAR | 2   |
| 10     | 552130102 | CRPH STS – 6.3X30 MACHINED          | 1   |
| 11     | 921776    | KNOB ASSY                           | 1   |
| 12     | 822088    | HEX NUT STEEL - M8                  | 2   |
| 13     | 921018    | NUT SIDE BROOM KNOB                 | 1   |
| 14     | 921011    | THREADED ROD – SIDE BROOM           | 1   |
| 15     | 921012    | PROTECTION CAP THREAD ROD           | 1   |



| SL.NO | PART NO   | DESCRIPTION                          | QTY |
|-------|-----------|--------------------------------------|-----|
| 16    | 923427    | EXTERNAL CIRCLIP - A 10              | 1   |
| 17    | 921015    | BEARING HOUSING – SIDE BROOM ARM     | 1   |
| 18    | 875001    | BEARING – 6000 ZZ                    | 2   |
| 19    | 552350021 | WASHER STEEL - 10.6X18X4             | 1   |
| 20    | 921141    | AXLE SHAFT – SIDE BROOM              | 1   |
| 21    | 921066    | WASHER STEEL - 16.2X22X0.5           | 2   |
| 22    | 921014    | V-BELT PULLEY                        | 1   |
| 23    | 921006    | KEY                                  | 1   |
| 24    | 923250    | WASHER STEEL - 14.2X20X0.5           | 1   |
| 25    | 923429    | EXTERNAL CIRCLIP - A 16              | 1   |
| 26    | 923169    | DEFLECTOR ROLLER - SIDE BRUSH        | 1   |
| 27    | 923783    | SIDE BRUSH ASSY                      | 1   |
| 28    | 835709    | CRPH SELF TAP SCREW – STEEL - 6.3X30 | 2   |
| 29    | 844061    | WASHER-STEEL - 6.4X12.5X1.6          | 2   |
| 30    | 802309    | HEX HEAD SCREW - STEEL 8.8 - M6X30   | 1   |
| 31    | 859066    | HEX NYLOCK NUT-STEEL GR.6 - M6       | 3   |
| 32    | 552180025 | SIDE BROOM GROUP                     | 1   |

# ***“More Than Just Clean”***

**Minuteman is a Full Line Manufacturer of Sweepers and Scrubbers,  
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