



# MAGNUM DK

*“DIESEL KUBOTA”*

## *BASIC OPERATION, MAINTENANCE & TROUBLESHOOTING MANUAL*



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## INTRODUCTION

“EUREKA S.r.l.” , leader manufacturer of sweeping machines, is pleased to welcome you as an owner of the “ MAGNUM DK” sweeper. We are sure that its use will give you great satisfaction and that while working with the MAGNUM DK you will have the opportunity to appreciate its quality, robustness, and versatility. The MAGNUM DK” is suitable for the cleaning of medium to large areas, for private, industrial and public use. In this handbook are described and shown various operations of installation, control and maintenance, necessary to keep your MAGNUM DK in perfect working condition. These are normal maintenance operations, which any operator can carry out with tools normally available. For additional maintenance operations you should contact your nearest EUREKA service point.

**BEFORE USING THE MACHINE, CAREFULLY READ THIS MANUAL AND KEEP IT WITHIN EASY REACH FOR FURTHER CONSULTATION.**

The observance of the instructions given in this manual, and a careful operator, are the best guarantee against accidents which may occur while working with the machine. The sweeping machines produced by EUREKA are designed according to the latest safety requirements, but they must be used following these instructions.

## GENERAL NOTE

All information contained in this manual is current at the time of printing. However, due to constant updates and improvements, we reserve the right to make changes at any time without notice

## WARNING AND RECOMMENDATIONS

IMPORTANT POINTS FOR THE SAFETY OF ALL THE PEOPLE INTERESTED IN THE USE OF THIS SWEEPER “ MAGNUM DK”.

- THE SWEEPER HAS BEEN DESIGNED FOR THE CLEANING OF DRY FLOORS.
- DO NOT WORK IN THE PRESENCE OF TOXIC POWDERS.
- DO NOT WORK IN ENVIRONMENTS WHICH MAY BE UNDER RISK OF EXPLOSION.
- DO NOT COLLECT MATERIAL AND ALL THAT MAY LEAD TO FIRE (FOR EXAMPLE LIGHTED CIGARETTES)
- NEVER ALLOW ANYONE TO ENTER THE SWEEPER’S OPERATING AREA.
- NEVER LEAVE THE SWEEPER WITH THE ENGINE RUNNING ; TURN THE ENGINE OFF AND TAKE THE KEY AWAY.
- NEVER OPEN THE PROTECTIVE COVERS WHEN THE SWEEPER IS RUNNING.
- MAINTENANCE OPERATIONS SHOULD ONLY BE CARRIED OUT WITH THE ENGINE TURNED OFF.
- ONLY OPERATE THE SWEEPER FROM THE DRIVING SEAT.
- DO NOT ATTEMPT TO WORK ON SLOPES WHOSE GRADIENTS EXCEED THE VALUE SHOWN ON THE TABLE.
- DO NOT USE THE MACHINE FOR THE CLEANING OF OBJECTS.
- THE MAIN BRUSH MUST NOT SWEEP UP WIRES, ROPES, OR ANY OTHER LONG MATERIAL THAT MAY GET TANGLED WITH IT.
- DO NOT CARRY OUT ANY MODIFICATION TO THE MACHINE WITHOUT OUR PREVIOUS AUTHORISATION.
- THE SWEEPER IS NOT OMOLOGATED FOR USE ON PUBLIC STREETS.

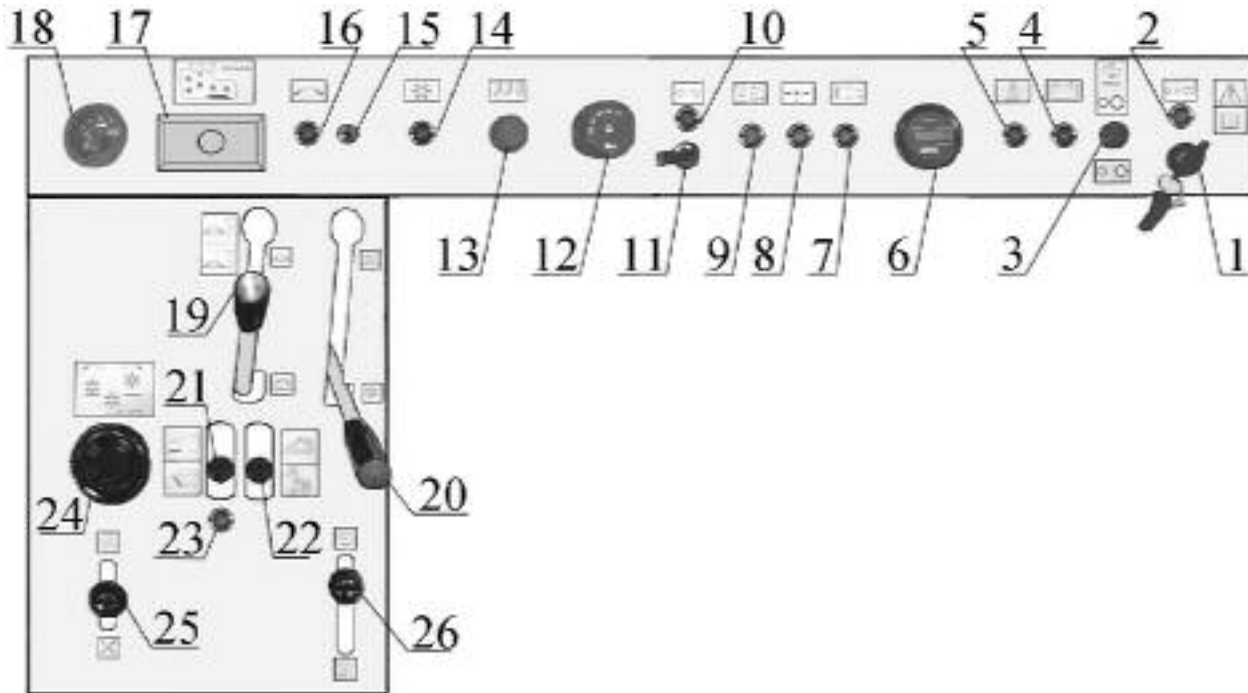
*N.B. EUREKA S.R.L. DECLINES ALL RESPONSIBILITIES FOR ANY DAMAGE TO PERSONS AND/OR PROPERTIES CAUSED BY FAILING TO OBSERVE THE ABOVE WARNINGS OR AS A CONSEQUENCE TO THE INAPPROPRIATE OR INCORRECT USE OF THE SWEEPER.*

*The sweeping machines manufactured by EUREKA follow the CE directory and show the label :*



## MAGNUM "DK" – MAJOR COMPONENTS

### THE DASHBOARD



#### PIC. A

1. KEY SWITCH
2. PRE-HEAT WARNING LIGHT
3. ELECTRO-MAGNETIC CLUTCH SWITCH
4. ALTERNATOR WARNING LIGHT
5. COOLING LIQUID TEMPERATURE WARNING LIGHT
6. HOUR METER
7. AUXILIARY ALTERNATOR WARNING LIGHT
8. ENGINE OIL PRESSURE WARNING LIGHT
9. HYDRAULIC OIL TEMPERATURE WARNING LIGHT
10. BLINKERS SWITCH ( OPTIONAL )
11. BLINKERS INDICATOR LIGHT (OPTIONAL)
12. HEADLIGHTS & HORN SWITCH
13. FILTER-SHAKER BUTTON
14. MAIN BRUSH WARNING LIGHT
15. SIDE BRUSH MOTOR FUSE
16. SIDE BRUSH WARNING LIGHT
17. HOPPER FIRE DETECTOR WARNING LIGHT (OPTIONAL)
18. FUEL GAUGE
19. SIDE BRUSH LEVER
20. MAIN BRUSH LEVER
21. HOPPER DOOR CLOSE-OPEN LEVER
22. HOPPER UP-DOWN LEVER
23. CLOSED HOPPER DOOR WARNING LIGHT
24. MAIN BRUSH ADJUSTING KNOB
25. VACUUM CUT-OFF LEVER
26. THROTTLE CONTROL



## BASIC OPERATING CONTROLS

- ⇒ **ALTERNATOR WARNING LIGHT** : When engine is running the light (n° 4 pic. A) should be off.
- ⇒ **COOLING LIQUID WARNING LIGHT**: It flashes upon over-heating of the cooling liquid ( n°5 pic.A )
- ⇒ **HOUR METER**: Indicates the total running hours of the machine (n° 6 pic. A).
- ⇒ **AUXILIARY ALTERNATOR WARNING LIGHT**: The warning light, when the engine is on and the Electro-magnetic clutch is engaged, should be off. (n°7 pic. A).
- ⇒ **ENGINE OIL PRESSURE WARNING LIGHT**: It flashes when the oil pressure falls below the limit (n°8 pic. A).
- ⇒ **HYDRAULIC OIL TEMPERATURE WARNING LIGHT**: If the temperature of the hydraulic oil in the tank exceeds 83° - 88°C the warning light will show. (n° 9 pic. A). **IMPORTANT!** You must stop the machine.
- ⇒ **HEADLIGHTS & HORN SWITCH**
  - By turning the knob (n° 12 pic. A) clockwise, the headlights will switch-on.
  - To use the horn, press down the knob.
  
- ⇒ **FILTER-SHAKER FUNCTION**: The working efficiency of the Magnum is greatly influenced by the state of cleanliness of the filters; we therefore recommend to shake them frequently, especially if the area to be cleaned is particularly dusty. Filters can be shaken in 2 ways:
  - **WHEN ENGINE IS OFF:**
    - Turn the key (n° 1 fig. A) to position 1.
    - Press the filter-shaker button (n° 13 fig. A) for 5÷10 seconds.
    - Repeat this operation a few times.
  - **WHEN ENGINE IS ON:**
    - Move the throttle control(n° 26 fig. A) to position MIN.
    - Turn of the vacuum fan (n° 25 fig. A).
    - Press the filter-shaker button (n° 13 fig. A) for 5÷10 seconds.
    - Repeat this operation a few times.
  
- ⇒ **SAFETY FUSE FOR SIDE BRUSH MOTOR**: It stops the side brush to prevent damages to the motor.
 

**RE-SET OPERATIONS:**

  - After the brush stops, wait a few minutes, then:
  - Press the fuse rubber cap n° 15 fig. A.
  - The side brush should rotate.
  - **NOTE!** If the side brush stops again, please check if there is anything tangled in it. Then, clean it and repeat above operations.
  
- ⇒ **FIRE DETECTOR WARNING LIGHT (optional)** : It flashes (n° 17 fig. A) and activates an acoustic signal when temperature in the hopper exceeds 60°C.
  - **NOTE!** When this situation occurs, close immediately the vacuum ( n° 25 Fig. A ) and the rubbish box ( n° 21 Fig. A ). Then, move the sweeper away from dangerous areas. Open the inspection door of the hopper and in case of fire extinguish it by mean of a **DRY FIRE EXTINGUISHER**
  
- ⇒ **DUMP DOOR WARNING LIGHT**: Warning light will show when the dump door is closed.(n°23 fig. A).
  
- ⇒ **MAIN BRUSH PRESSURE ADJUSTMENT KNOB**:
  - TO INCREASE PRESSURE: turn the knob (n° 24 fig. A) counter-clockwise.
  - TO DECREASE PRESSURE: turn the knob (n° 24 fig. A) clockwise.
  
- ⇒ **VACUUM CUT-OFF**: The vacuum-fan should be turned off (n°25 fig. A) when sweeping on wet areas, in order to protect the filters. It should be also turned off when shaking the filters.

## DANGER AND OBLIGATION SYMBOLS

	DANGER SYMBOL. WARNING: very hot surfaces
	OBLIGATION SYMBOL. WARNING: Use adequate acoustic protection. In a number of working environments, sweepers might generate an acoustic danger which can be eliminated with adequate acoustic protection .

## USE AND MAINTENANCE OF THE SWEEPER

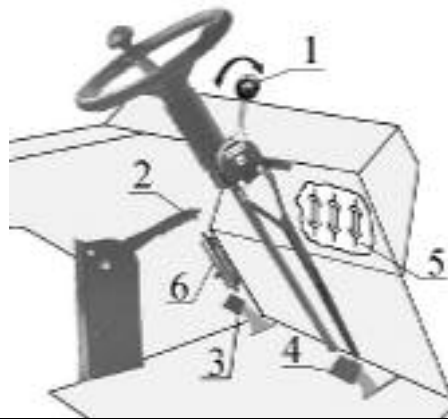
Eureka sweepers should never be operated unless the operator is trained and authorised to operate the equipment and the sweepers are free of malfunctions. Malfunctioning equipment should be removed from service.

**WARNING!** For the maintenance and the correct use of the engine carefully read the original manual supplied by “KUBOTA” and strictly follow the instructions in it contained .

<b>STARTING THE ENGINE “LOAD-FREE”</b>	<ul style="list-style-type: none"> <li>⇒ Before starting the machine, make sure that main brush and side brushes are raised from the ground.</li> <li>⇒ The Electro-magnetic clutch must be disengaged (n°3 fig. A)</li> <li><b>NOTE!</b> If the Electro-magnetic clutch is engaged, the starting motor will not work.</li> <li>⇒ Turn the ignition key clockwise until the pre-heating indicator will light up ( n°2 – pic. A )</li> <li>⇒ Hold the key in position until the light will switch off.</li> <li>⇒ Press down the key and turn it clockwise ( MAX 5 secs. ) .</li> <li><b>NOTE!</b> Do not use the electric start for more than 5 seconds each time. If the engine does not run, release the key and wait for at least 10 seconds before trying again.</li> <li>⇒ Let run the engine with throttle control ( n°26 – pic. A ) at MIN position for 3-5 mins., then:</li> <li>⇒ Pull the throttle control to MAX ( n° 26 pic. A. )</li> </ul>
<b>TURNING OFF THE ENGINE</b>	<ul style="list-style-type: none"> <li>⇒ Disengage the Electro-magnetic clutch ( n° 3 pic. A )</li> <li>⇒ Move the throttle control ( n° 26 pic. A ) to position MIN.</li> <li>⇒ Turn the ignition key ( n° 1 pic. A ) to position 0.</li> </ul>
<b>CONNECTING THE CINEMATIC FOR THE DRIVE AND OTHER FUNCTIONS</b>	<ul style="list-style-type: none"> <li>⇒ The operator must be sat down on the sweeper’s seat.</li> <li><b>NOTE!</b> The seat is equipped with a micro-switch which cuts-off the main drive as well as some other features if the operator is not sat down. However, the engine will not be turned off</li> <li>⇒ Start the engine and pull the throttle control to MAX (n° 26 pic. A. )</li> <li>⇒ Connect the Electro-magnetic clutch by clicking up the switch ( n° 3 pic. A. )</li> </ul> <p style="text-align: center;"><b>THE SWEEPER IS READY FOR USE</b></p>

### PIC. B

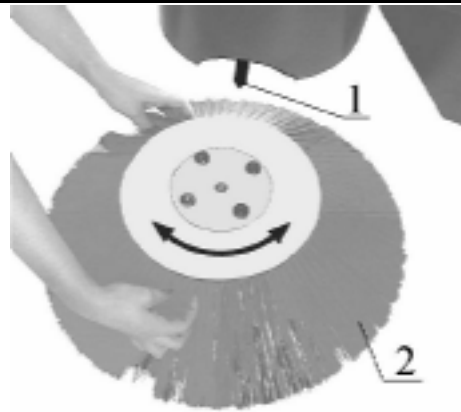
1. FWD\REV SPEED LEVER
2. PARKING BRAKE
3. EMERGENCY BRAKE
4. ACCELERATOR PEDAL
5. FUSES
6. HYDRAULIC DAMPER



<b>MOVING THE MACHINE</b>	<ul style="list-style-type: none"> <li>⇒ FORWARD: pull-up the lever n°1 then press the accelerator pedal n° 4</li> <li>⇒ REVERSE: pull-down the lever n° 1 then press the accelerator pedal n° 4</li> <li><b>NOTE!</b> Stop the machine before changing speed direction.</li> </ul>
<b>PARKING BRAKE</b>	<ul style="list-style-type: none"> <li>⇒ To engage it, push down the button then pull-up the lever n° 2</li> </ul>
<b>SERVICE BRAKE</b>	<ul style="list-style-type: none"> <li>⇒ The service brake is engaged each time the accelerator pedal is released ( n° 4 )</li> </ul>
<b>EMERGENCY BRAKE</b>	<ul style="list-style-type: none"> <li>⇒ To stop the machine in case of emergency, press the pedal n°3</li> </ul>
<b>REPLACING THE FUSES ( N° 5 )</b>	<ul style="list-style-type: none"> <li>⇒ Remove the clamps from the battery.</li> <li>⇒ Remove the metal protection.</li> <li>⇒ Replace the fuse.</li> <li>⇒ Re-assembly the unit.</li> </ul> <p style="text-align: center;"><b>NOTE!</b> DON'T CHANGE THE AMPS. VALUE OF THE FUSE.</p>

**PIC. C**

1. SIDE BRUSH DRIVE SHAFT
2. SIDE BRUSH

**SIDE BRUSH CONTROL**

- ⇒ The side brush can be raised or lowered by mean of the lever n°19 pic. A.
- NOTE!** The side brush will rotate when:
  1. The hopper is down and the lip is open;
  2. The main brush lever (n°20 pic. A) and side brush lever ( n°19 pic. A ), are lowered.

**ADJUSTING THE SIDE BRUSH**

- ⇒ INCREASE PRESSURE: turn the handle of lever ( n°19 pic. A ) counter-clockwise.
- ⇒ DECREASE PRESSURE: turn the handle of lever (n°19 pic. A) clockwise.

**REMOVING THE SIDE BRUSH**

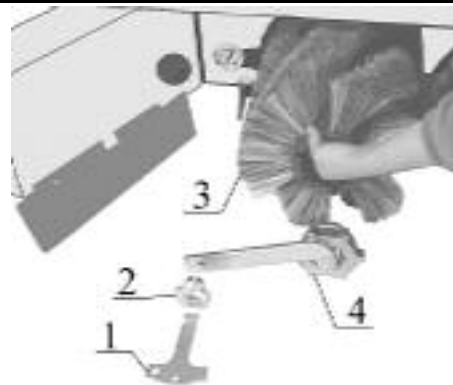
- ⇒ Raise the brush (lever n°19 pic. A)
- ⇒ Hold the brush with both hands and turn it counter-clockwise (pic. C.)

**RE-INSTALLING THE SIDE BRUSH**

- ⇒ Match the side brush hub in the drive shaft (n° 1 pic. C)
- ⇒ Push it up and turn it slowly clockwise to match the seats.
- ⇒ Now turn it until completely connected.

**PIC. D**

1. MULTI-PURPOSE KEY
2. METAL RING
3. MAIN BRUSH
4. SUPPORT (RIGHT)

**MAIN BRUSH**

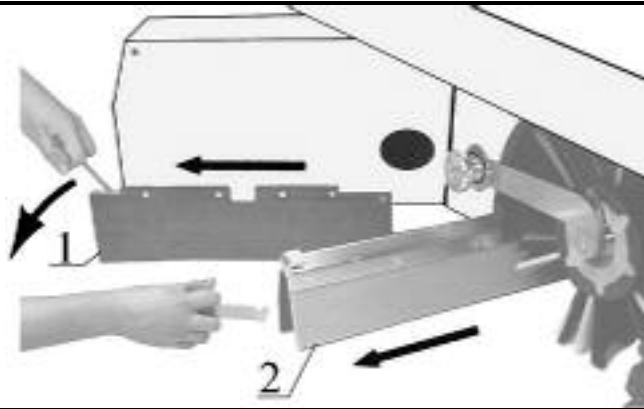
- ⇒ The main brush can be raised or lowered by mean of lever n° 20 pic. A.
- NOTE!** The main brush will rotate only when:
  1. The hopper is down and the lip is open;
  2. The main brush lever (n° 20 pic. A) is lowered.

**REPLACING THE MAIN BRUSH**

- ⇒ The engine must be turned off.
- ⇒ The hopper must be lowered: lever n°22 pic. A.
- ⇒ Hopper lip must be open: lever n°21 pic. A.
- ⇒ Main brush lever n°20 pic. A. must be lowered
- ⇒ Turn the starting key to position 1 (n°1 pic. A.)
- ⇒ Turn the adjustment knob completely (n°24 pic. A) clockwise, then counter-clockwise 3 turns.
- ⇒ Open the rear panel (n° 7 pic. G) and take the multi-purpose key (n°1 pic. G.)
- ⇒ Open the bottom metal right panel.
- ⇒ Remove the metal ring n°2 pic. D.
- ⇒ Remove the support n°4 pic. D, and the brush n° 3 pic. D.
- ⇒ Replace the brush, then re-assembly the unit making sure to set the brush lever and the starting key at their original position.
- ⇒ Adjust the clean path (max 50 – 60 mm) of the brush by turning the knob ( n° 24 pic. A)

**PIC. E**

1. RIGHT SIDE RUBBER FLAP
2. REAR RUBBER FLAP



**REPLACING THE RUBBER FLAPS  
(RIGHT AND REAR)**

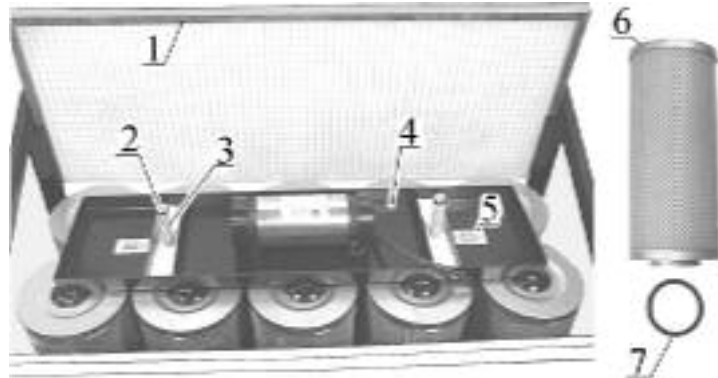
- ⇒ Open the rear panel (n° 7 pic. G)
- ⇒ Take the multi-purpose key (n°1 pic. G.)
- ⇒ Open the bottom metal right panel
- ⇒ Hook the key to the flaps then pull as indicated in pic. E.
- ⇒ Replace the flaps.
- ⇒ Insert the new flaps in the correct brackets.

**REPLACING THE RUBBER FLAPS  
(LEFT SIDE)**

- ⇒ Open the rear panel (n° 7 pic. G)
- ⇒ Take the multi-purpose key (n°1 pic. G.)
- ⇒ Open the bottom metal left panel
- ⇒ Remove the 2 metal locking rings.
- ⇒ Replace the flap, then re-assembly the unit.

**PIC. F**

1. PANEL FILTER
2. LOCK NUTS
3. SPRINGS
4. LOCK PLATE
5. LABEL
6. FILTER
7. FILTERS GASKET

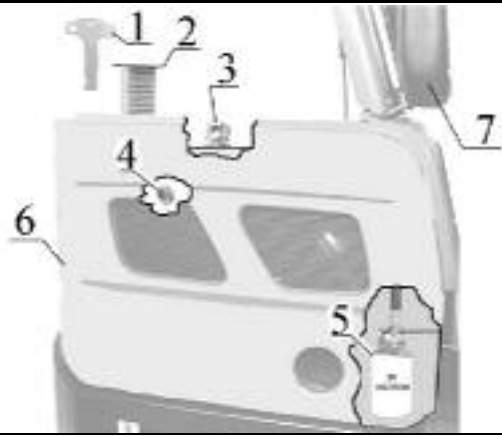


**REPLACING THE FILTERS**

- ⇒ Shake the filters throughout
- ⇒ Open the front hood
- ⇒ Remove the lock nuts (n° 2 pic. F) and the springs (n°3 pic. F).
- ⇒ Remove the lock plate (n° 4 pic. F).
- ⇒ Replace the filters (n° 6 pic. F).
- ⇒ Make sure both filters and gaskets (n°7 pic.F) are fitted properly in their seats.
- ⇒ Re-assembly the unit by locking the nuts, then press the springs as indicated on label (N° 5 PIC. F).

**PIC. G**

- 1. MULTI-PURPOSE KEY
- 2. AIR EXHAUST FILTER
- 3. PLUG - HYDRAULIC OIL TANK
- 4. HYDRAULIC OIL LEVEL GAUGE
- 5. HYDRAULIC OIL FILTER
- 6. RIGHT PANEL



**CHECKING THE HYDRAULIC OIL LEVEL**

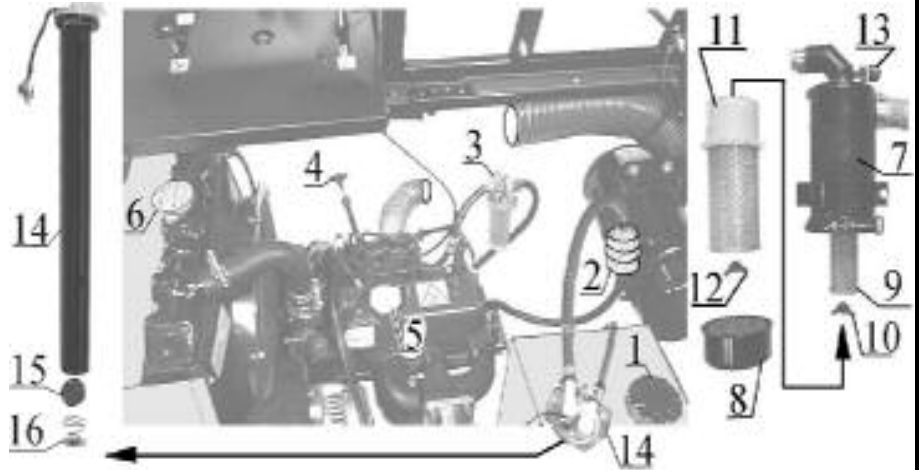
- ⇒ Check periodically (every 100 hours) the oil level (n°4 pic. G).
- ⇒ If level is low, add oil (plug n° 3 pic. G) up to the middle of indicator (n° 4 pic. G).
- ⇒ In case of leaks, consult a service centre.

**REPLACING THE HYDRAULIC OIL FILTER**

- ⇒ Remove the right panel n°6 pic. G.
- ⇒ Replace the filter (n°5 pic. G).

**PIC. H**

- 1. FUEL TANK PLUG
- 2. SECONDARY FUEL FILTER
- 3. PRIMARY FUEL FILTER
- 4. ENGINE OIL LEVEL
- 5. OIL TANK PLUG
- 6. COOLING LIQUID PLUG
- 7. AIR FILTER HOUSING
- 8. AIR FILTER PLUG
- 9. SECONDARY AIR FILTER
- 10. BOLT
- 11. PRIMARY AIR FILTER
- 12. BOLT
- 13. FILTER CLOGGING LEVEL INDICATOR
- 14. FUEL LEVEL INDICATOR
- 15. FUEL LEVEL FILTER
- 16. SPRING



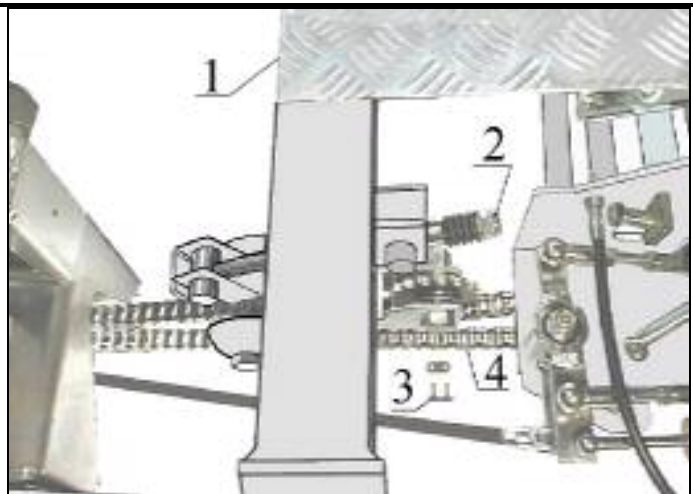
**FILTER CLOGGING LEVEL INDICATOR**

- NOTE:** When the red band shows, the filter is clogged!
- ⇒ Clean or replace the cartridge filters (n° 9-11)
  - ⇒ Press the indicator button to re-set it (n° 13)

**PIC. I**

**TOWING THE MACHINE**

- ⇒ Remove the foot panel n° 1.
- ⇒ Release the bolt n° 2.
- ⇒ Remove the chain joint n° 3.
- ⇒ Remove the chain n° 4.
- ⇒ Re-assemble the foot panel n°1.
- ⇒ Tow the machine without exceeding speed of 3 – 4 Km/h.



**MOVING THE MACHINE WHEN ENGINE IS OFF**

- ⇒ Push the sweeper only for a short distance (about 3 m), or until it stops. Wait 1 min then repeat

**EMERGENCY CASES**

Strictly observe the following instructions :

- ⇒ In the event of fire, use only powder fire extinguishers.
- ⇒ In the event of unusual failures (engines or motor overheating, etc.) turn off immediately the machine

**WASTE MATERIAL.**

For the dumping of waste material such as oil, plastic part, batteries, packing boxes, please contact those facilities authorised for the dumping of special waste.

**VIBRATIONS**

The level of vibration to which the operator is subjected is below the maximum level allowed by the CE DIRECTORY for industrial machinery ( CEE 89\392 ).

**NOISE LEVEL**

The level of noise has been measured to the level of the operator's ear and while the machine is working .

- ⇒ The maximum value read is XXXXX dB.

## PLANNED MAINTENANCE CHART

### INTRODUCTION

Regular maintenance on your sweeper results in better cleaning, faster cleaning, and a prolonged service life for the equipment and components. This section contains the following information to help you give your sweeper the maintenance attention it requires.

**WARNING:** never attempt to perform any service on the equipment or components until the machine is OFF, the parking brake is LOCKED, the wheels are CHOCKED, the battery clamps are DISCONNECTED

**WARNING:** The safety parts and devices must not be tampered with. They can be removed only when executing maintenance operations and by Authorised Service Centres ( ASC ).

FREQUENCY ( IN HOURS )								SERVICE
DAILY	50	100	200	300	500	1000	2000	
X								<ul style="list-style-type: none"> <li>• <b>ENGINE</b></li> <li>⇒ Check engine air filter clogging indicator</li> <li>⇒ Check secondary fuel filter</li> <li>⇒ REPLACE secondary fuel filter</li> <li>⇒ Check fuel level filter</li> <li><i>For additional maintenance requirements, refer to the engine manual furnished with the machine.</i></li> </ul>
X			ACS					
			ACS					
	X							<ul style="list-style-type: none"> <li>• <b>ELECTRICAL SYSTEM</b></li> <li>⇒ Check electrolyte level in starting battery and fill as needed</li> </ul>
		X						<ul style="list-style-type: none"> <li>• <b>HYDRAULIC SYSTEM</b></li> <li>⇒ Check hydraulic fluid level and fill as needed</li> <li>⇒ REPLACE hydraulic fluid</li> <li>⇒ REPLACE filter ( 1<sup>st</sup> time )</li> <li>⇒ REPLACE filter</li> </ul>
						ACS		
		ACS			ACS			
X								<ul style="list-style-type: none"> <li>• <b>SWEEPING COMPONENTS</b></li> <li>⇒ Inspect main and side brooms for wear and remove strings\debris from bristles and drive assembly</li> <li>⇒ Perform main broom adjustment test and adjust as needed</li> <li>⇒ Inspect main broom door seals\flaps for wear</li> <li>⇒ REPLACE flaps as needed</li> <li>⇒ ACS to REPLACE seals as needed</li> <li>⇒ REPLACE main and side brooms as needed</li> </ul>
X	X							
	X							<ul style="list-style-type: none"> <li>• <b>FILTERS</b></li> <li>⇒ Check and clean cartridge filters</li> <li>⇒ REPLACE cartridge filters as needed</li> <li>⇒ Check and clean main panel filter</li> <li>⇒ Check and clean panel filter on air exhaust</li> <li>⇒ REPLACE main panel filter as needed</li> <li>⇒ REPLACE panel filter on air exhaust as needed</li> </ul>
X	X							
X								<ul style="list-style-type: none"> <li>• <b>HOPPER</b></li> <li>⇒ Check hopper flaps for wear or damage and replace as needed</li> <li>⇒ Check hopper door rubber seals for wear or damage and replace as needed</li> </ul>
X								
			ACS ACS ACS ACS					<ul style="list-style-type: none"> <li>• <b>LUBRICATED COMPONENTS</b></li> <li>⇒ Check and if needed lubricate <i>steering shaft</i> and <i>links</i></li> <li>⇒ Check and if needed lubricate <i>gearbox</i> unit</li> <li>⇒ Check and if needed lubricate <i>main brush floating shaft</i></li> <li>⇒ Lubricate the transmission chain by the appropriate lubricating</li> </ul>
	X X		ACS ACS					<ul style="list-style-type: none"> <li>• <b>MISCELLANEOUS</b></li> <li>⇒ Check belts tension and adjust as needed</li> <li>⇒ Check chains tension and adjust as needed</li> </ul>
						ACS ACS		
			ACS					⇒ Check inlet\outlet vacuum hoses
			ACS	ACS				⇒ REPLACE inlet\outlet vacuum hoses
			ACS					⇒ Check all brakes for proper functioning and adjust as needed

**TROUBLE-SHOOTING GUIDE**

**WARNING!** Any other type of service operation or test, with the exception of those shown in the engine's manual or the battery's manual, must be carried out by Authorised Service Centres only.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
The engine won't start and the starting motor does not work	1. Flat or worn out battery 2. Starting motor is broken 3. Ignition switch broken 4. Electro-magnetic switch broken 5. Electro-magnetic clutch is connected	1. Re-charge or replace the battery 2. Replace it 3. Replace it 4. Replace it 5. Disconnect it
The engine won't start even if the starting motor works	6. Low throttle 7. Engine cut-off electro-magnetic switch is blocked or broken 8. Fuel filter clogged 9. Air filters clogged 10. Air is sucked into the fuel system 11. Pre-heating glow plugs old or dirty	6. Increase throttle 7. Replace it 8. Clean or replace it 9. Clean or replace filters 10. Check the system 11. Check/replace glow plugs
The engine is on, but the sweeper does not move.	12. Chain is broken 13. Electro-magnetic clutch is disengaged 14. Clutch is broken 15. Belts are broken 16. Hydrostatic drive is broken	12. Replace it 13. Engage it 14. Replace it 15. Replace belts 16. Replace it
The engine is very noisy and smoky	17. Faulty carburettor 18. Exhaust is broken	17. Adjust it 18. Replace it
Dust in the bonnet	19. Broken or old filters. 20. Filter gaskets have not been mounted	19. Replace the filters 20. Mount the gaskets
Uneven sweeping action by main brush	21. Worn main brush 22. Brush is raised from floor 23. Some material may be tangled with brush 24. Low brush pressure to floor	21. Replace the brush . 22. Lower it 23. Clean main brush 24. Increase pressure
Dust and debris leak out from container	25. Rubber flaps are worn or broken	25. Replace them
Warning lights don't show	26. Flat battery . 27. Fuse blown-off	26. Re-charge or replace the battery 27. Replace it
Flat battery	28. Battery in short-circuit 29. The alternators don't work	28. Replace battery . 29. Check them
No vacuum power	30. Vacuum fan is off 31. Filters are clogged 32. Fan belt is broken 33. Side panels in main brush compartment are open	30. Turn it on 31. Clean or replace filters 32. Replace belt 33. Close them
Filter shaker does not work	34. Blown fuse 35. Faulty filtershaker 36. Faulty filter-shaker button	34. Replace it 35. Check and repair/replace it 36. Check and repair/replace it
Main brush does not work	37. Belt is broken 38. Belt is loose 39. Electro-magnetic clutch is off 40. Electro-magnetic clutch is broken 41. Microswitches: Main brush m.s.; Hopper door m.s.; Hopper lift m.s.: any of above features are off or broken	37. Replace it 38. Check belt tensioner or replace it 39. Turn it on 40. Replace it 41. Turn it on or replace it
Side brush does not work	42. Belt is broken 43. Reduction motor is burnt or faulty 44. Safety fuse is still engaged 45. Main brush is off 46. Microswitch is faulty	42. Replace it 43. Check and repair/replace it 44. Disengage it 45. Turn it on 46. Check and repair/replace it

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Hopper will not raise	47. Hopper load is too heavy 48. Pump is faulty 49. Hydraulic distributor is faulty 50. Lift cylinder is faulty 51. Hydraulic flow limit valve is faulty	47. Dump more frequently 48. Check and repair\replace pump 49. Check and repair\replace it 50. Replace the seals 51. Check and repair\replace it
Hopper can not be lowered	52. Safety bar is installed on lift cylinder 53. Hydraulic distributor is faulty 54. Hydraulic flow limit valve is faulty 55. Lift cylinder is blocked	52. Remove it 53. Check and repair\replace it 54. Check and repair\replace it 55. Check and repair\replace it
Hopper door will not close	56. Hopper is over-filled 57. Piston is blocked 58. Hydraulic distributor is faulty 59. Check and repair\replace it	56. Dump more frequently 57. Check and repair\replace it 58. Replace it 59. Check and repair\replace it
Hopper door will not open	60. Debris may obstacle the door 61. Piston is blocked 62. Hydraulic distributor is faulty 63. Check and repair\replace it	60. Remove all debris 61. Check and repair\replace it 62. Check and repair\replace it 63. Check and repair\replace it

## THE OPTIONAL POLYESTER BAG FILTER

The **optional** polyester bag filter is particularly recommended in presence of very fine dust and applications such as cement plants, chalk plants, talcum powder plants and other similar products.

To achieve best performances, shake the filter often ( every 15 – 20 minutes ) or at least prior to dump the dirt.

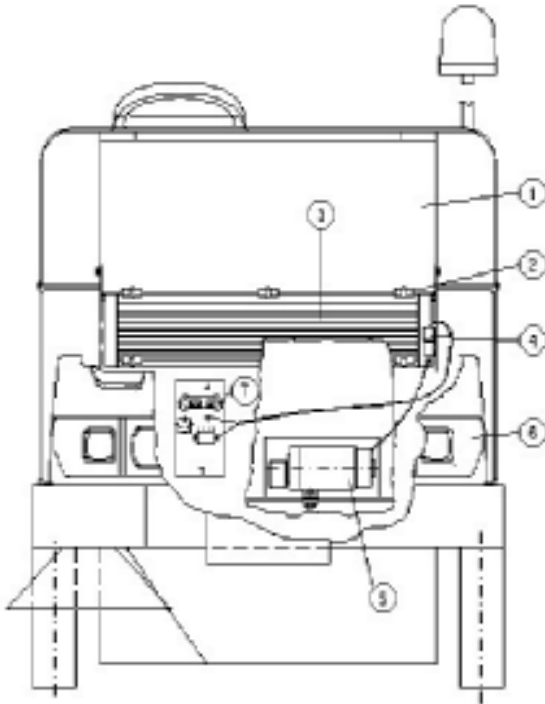
**NOTE:** the dirt container must be lowered to the floor when shaking the filter.

Every 100 hours, shake the filter throughout and clean it with compressed air **without** removing it from its support.



### TECHNICAL SPECIFICATIONS

<b>COMPOSITION</b>	POLYESTER FIBRE
<b>WEIGHT ( g/m<sup>2</sup> )</b>	400
<b>THICKNESS</b>	mm 1,25
<b>DENSITY ( g/cm<sup>3</sup> )</b>	0,32
<b>AIR PERMEABILITY</b>	DIN 53887 lt/dm <sup>2</sup> x min. 180
<b>FILTERING AREA ( m<sup>2</sup> )</b>	6
<b>FILTERING CLASS</b>	S Max penetration value = 1% Dusts with values of max. occupational exposure > 0,1 mg/m <sup>3</sup>



### EXPLODED VIEW

1. FILTER COMPARTMENT HOOD
2. LOCKING BOLTS
3. POLYESTER FILTER
4. CONNECTOR
5. 12V FILTER-SHAKER ( 36V ON "EB" VERSION )
6. FRONT ABS PANEL
7. 40 Amps. FUSE ( 30 A. ON "EB" VERSION )

#### **REMOVING THE FILTER:**

- A. REMOVE THE HOOD n° 1
- B. REMOVE THE BOLTS n° 2
- C. REMOVE THE POLYESTER FILTER n° 3
- D. DISCONNECT THE CONNECTOR n° 4

#### **REPLACING THE FUSE**

- A. OPEN THE FILTER COVER n°1
- B. REMOVE THE FRONT ABS PANEL n° 6
- C. REPLACE THE FUSE n° 7

**NOTE:** DO NOT CHANGE THE Amps. VALUE OF THE FUSE



## **MAGNUM DK ( LIMITED ) PRODUCT WARRANTY**

Eureka srl warrants that the MAGNUM DK will be free from defects in material and workmanship for a period of 12 months from date of installation. Written notice of any claimed defect must be given to Eureka srl or its Authorised Sales/Service Representative 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 Eureka or its Authorised Sales/Service Representative election, any part or parts deemed defective after examination.

This warranty does not extend to labor charges, handling charges or transport charges.

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

This warranty does not apply to routine wearable parts of the MAGNUM DK such as brushes, flaps, filters, seals, plugs, hoses, fuses or similar items. Moreover, this warranty does not extend to the MAGNUM DK or any of its parts already repaired or replaced under this warranty. Only replacement parts supplied by Eureka or Eureka's Authorised Sales/Service Representative are warranted for 30 days after installation.

The warranty for engines shall be limited to the warranty extended by the engine's manufacturer.

### **IMPORTANT!**

***Warranty claims will be evaluated only if the following Installation Form will be sent by fax or by mail, filled in all its parts, to Eureka's headquarter within thirty (30) days after the machine's installation.***

**EUREKA** S.r.l.

Via dell'Industria 32, 35013 CITTADELLA (PD) ITALY

Tel. ++39 - 049- 9481800

Fax. ++39 -049 – 9481899

INTERNET: [www.eurekasweepers.com](http://www.eurekasweepers.com) E-MAIL: [info@eurekasweepers.com](mailto:info@eurekasweepers.com)

## INSTALLATION FORM – MAGNUM DK

*Warranty claims will be evaluated only if a copy of the following Installation Form will be sent by fax or by mail, filled in all its parts, to Eureka's headquarter within thirty (30) days after the machine's installation. Please retain the original copy within the manual.*

<b>USER'S INFORMATION</b>	
COMPANY NAME	
ADDRESS	
TEL	
FAX	
INTERNET ADDRESS	
E-MAIL	
BUSINESS ACTIVITY	

<b>APPLICATION INFORMATION</b>	
TYPE OF AREA TO CLEAN	
APPROX. SIZE OF AREA (sq.mt)	

<b>MACHINE INFORMATION</b>	
SERIAL NUMBER	
MACHINE SOLD BY	
MACHINE INSTALLED ON DATE	

<b>GENERAL INFORMATION</b>	
1. THE DATE OF DELIVERY HAS BEEN RESPECTED ?	
2. HAVE YOU BEEN SHOWN HOW TO USE THE MACHINE?	
3. HAVE YOU CHECKED THE PERFECT FUNCTIONING OF THE MACHINE PRIOR TO ITS FIRST USE?	
4. DID YOU READ THE OPERATION MANUAL PRIOR TO USE THE MACHINE?	
5. HAVE YOU BEEN OFFERED A PREVENTIVE "MAINTENANCE CONTRACT" ?	
6. DID YOU ACCEPT IT?	

DATE	
SIGNED BY:	
POSITION:	

### ***Eureka srl***

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