

**Ing. O. Fiorentini**

**OPERATOR MANUAL**

**UBF 48**

**- S 48D -**



**ENGLISH**

**ING. O. FIORENTINI  
INDUSTRIAL CLEANING  
MACHINES**

## DIMENSIONAL CHARACTERISTICS

- lenght	2280 mm
- width	1480 mm
- height	1500 mm
- n° sweeping brushes (+1 optional)	3
- side sweep brush dimention	600 mm
- main brush dimentions ( lenght ; diameter )	1200 mm ; 380 mm
- working widht with RH hand side brush	1500 mm
- working widht with RH,LH (optional) side b.rushes	1800 m
- dirty hopper capacity	450 liters
- filtering surface	18 sq.m
- hydraulic oil tank	65 liters
- fuel tank	28 liters
- cooling water circuit	5 liters
- front wheel dimentions	4.00-8
- rear wheel dimensions	16x6-8
- working weight without operator	1470kg

## MOTOR CHARACTERISTICS

- motor Lombardini FOCS 1204	diesel
- cylinder	n°4
- displacement	1204 cc
- power	33 Cv
- filter-shaker motor ( permanent magnet )	65W 7,8A 7500 rpm
- suction hydraulic motor	OMM 20
- traction hydraulic motor	OMP W315
- central brush hydraulic motor	OMP 50
- side brush motor	OMP 100
- hydraulic drive	OSPC 100 ON
- variable pump	APVC 20

<b>FUNCTIONAL CHARACTERISTICS</b>	
- drive	operator on board
- minimum turning radius	2200mm
- service brake	Hydraulic
- parking brake	mechanical by lever
<b>PERFORMANCE</b>	
- forward speed	0-:-12 km/h
- reverse speed	0-:-12 km/h
- Max climb gradient	18 %
- max climb gradient for U turn	5% a 2 km/h
- sq. meters cleaned per hour	18000 mq/h
<b>ECOLOGICAL CHARACTERISTICS</b>	
- noise level at operatos car	75decibel
- operator position vibrations	less than 2,5m/sq

### **THIS MACHINE CAN BE CORRECTLY USED AS FOLLOWS:**

Sweeper with operator on board, to be used on flat surfaces or slopes up to 13% and to sweep floors with any lining, excluding carpets.

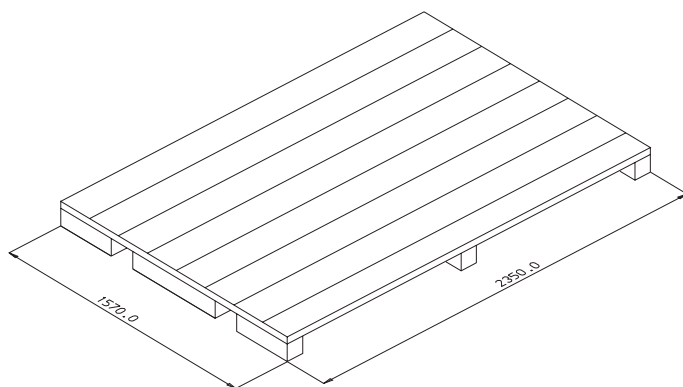
### **THIS MACHINE IS NOT SUITABLE FOR ANY OTHER USE AND PARTICULARLY:**

it cannot be used as a tractor, on slopes beyond 13% or as a vehicle to transport people.

### **HANDLING THE PACKED MACHINE**

The machine is delivered on a pallet, packed inside a plywood or carton box. The weight and dimensions are shown in the STANDARD FEATURES. The barycenter position is indicated by a black arrow both on the packing box and in the middle of the forks. The box should be handled carefully, avoiding shocks and any unnecessary lifting at excessive heights. Never stack the boxes.

**FIG. 1**

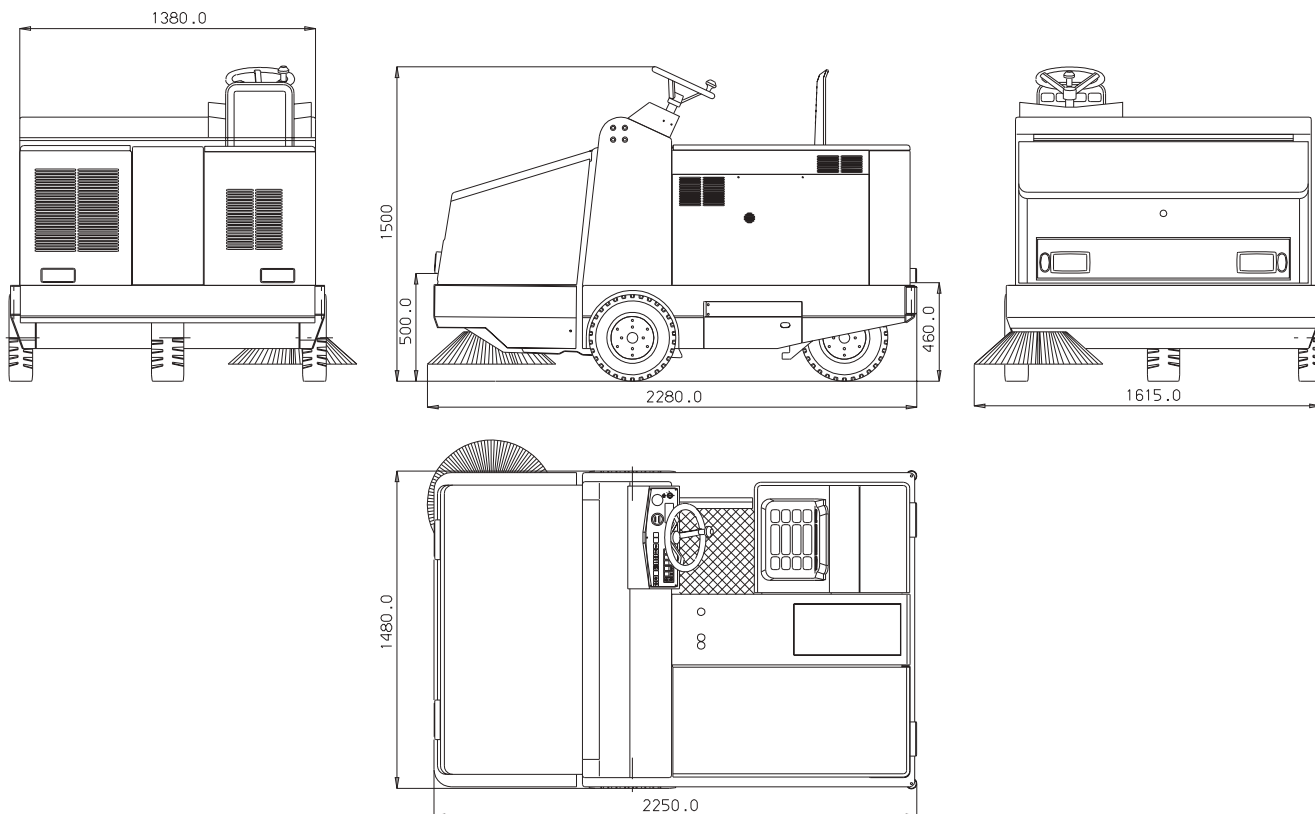


### **UNPACKING THE MACHINE**

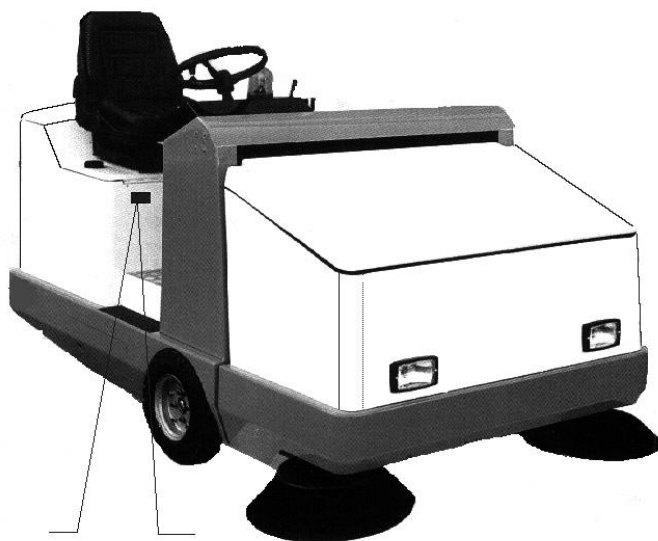
Unpack the machine with extreme care. First, cut the straps using proper cutting nippers, paying attention to the spring-back. Then, from the carton base, remove the staples fixing the carton to the pallet using a screwdriver or a proper tool. Then, lift the carton. In case of plywood, remove the staples from the sides and the base of each panel. The machine is further locked by other straps to be cut as previously described. Now take the machine on the soil using a metal or wooden ramp.

### **HANDLING THE UNPACKED MACHINE**

Check the unpacked machine and, if necessary, install the batteries. If a long transport is required, we recommend to pack the machine again in its original box. Note that the machine can be pushed for short paths.



## TECHNICAL DATA LABEL RECAPITULATION



Ing. O. Fiorentini  
50030 Piancaldoli (Fi)

MADE  
IN ITALY



Mod. <b>S 48D</b>	S.N.	1997
V	Hz	
kg <b>1370</b>	Hp <b>33</b>	
	W	

## GOODS TO BE RETURNED

In case of goods to be returned for warranty replacement, it is necessary to have a written acceptance from

FIORENTINI technical department before sending them.

All defective parts must be carefully packed in order to avoid further damages during transport.

Goods must be shipped ex-warehouse and followed by :

- **serial number of the equipment where they were installed on;**
- **item code of the defective part;**
- **detailed description of the defect and of the conditions where it happened.**

In case of defective electric or electronic goods,  
please return them separately from other materials,  
in order to help us in dividing dangerous wastegoods  
and recycle the (RAEE) as DER 2002/96/CEE LOW.



## **GENERAL INSTRUCTIONS**

Before using the machine, instruct all operators to read the chapter “SAFETY STANDARDS” (enclosed 1).

## **MANUFACTURER RESPONSABILITIES**

The manufacturer FIORENTINI is not responsible for any inconvenients, failures, accidents, etc. due to the non-acquaitance (or non-fulfilment) of the prescriptions contained in this manual. The same applies to change's execution, modifications, and/or to the installation of accessory not preliminarily authorized.

In particular, the firm FIORENTINI is not responsible for any damages caused by:

- natural calamity
- erroneous operations
- no maintenance

Furthermore, the MANUFACTURER is not responsible for any interventions not performed by authorized personnel.

## **SPARE PARTS**

Use only ORIGINAL SPARE PARTS, checked and authorized by the manufacturer. Do not replace the components after they become worn by the use; replacing a component in due time allows for a better machine operation and a saving as well, because greater damages will be avoided.

## **INTERVENTION REQUESTS**

Possible intervention requests should be made after an accurate analysis of the inconvenients and their causes. In any case, when calling the technician, report what follows:

- Model of the machine
- Series number
- The detail of the detected faults
- The checks executed
- The performed adjustments and their results
- Any other information considered useful for this purpose

- Address the requests to the authorized customer service

## **WARNING**

The manufacturer can make any changes to the machine, for constructive or commercial reasons, without being obliged to change the instruction manual at the right time according to these modifications.

## **GENERAL SAFETY STANDARDS**

The machine described in this manual has been built according to the 89/392/CEE rule regarding the machines and to its subsequent modifications.

The person responsible for the machine must adhere to CEE rules and to the local standards as well, regarding the working environment for operators' safety and health purposes. Before starting the machine, always perform the preliminary checks. The safety standards which involve any dangers, cited in the text of the manual, can be recognised by the symbol:



Beyond the standard listed hereunder, the person responsible for the machine must comply with the rules provided by the law in force regarding personnel's safety and health in the working stations. Furthermore, the person responsible for the machine must instruct the operators on what follows:

- Safety and accident prevention standards
- Specific standards regarding the machines
- Position on the machine of the emergency pushbuttons or of similar mechanisms, for a prompt operation. The fixed or movable protections (carters) should always remain in their position, correctly fixed with perfect integrity during all procedures regarding the normal operation. If, for any reasons, the carters are removed (protections switched off or short-circuited), their efficiency should be restored before restarting the machine. Use the machine only under technically unexceptionable conditions and in compliance with its destination, by observing the safety and prevention standards according to the prescriptions contained in the instruction and maintenance handbook. Remove (or let remove) immediately any failures which could compromise the safety. The machine is exclusively designated to be used as a scrubber; any other different use, i.e traction, does not comply with its destination. The manufacturer/supplier takes no responsibility for any consequent damage. The risk is completely to be charged to the user. The use according to the destination includes also the compliance with the use and maintenance instructions and with the inspection and maintenance conditions as well.

## **CAUTION: DANGER**

It is absolutely forbidden to suck inflammable and/or toxic liquids and powders.



## **CAUTION: DANGER**

It is dangerous and absolutely forbidden to touch the lower part of the machine with the hands when some parts are moving. Should it be absolutely necessary, remove the key from the dashboard.

## **CAUTION**

Caution: on this machine with operator on-board, the rotating headlight should constantly operate and must be switched on when turning the key switch. The switch on the dashboard must be set to "0" position only in particular situations and, in any case, with stillstand machine.

## **INSTRUCTIONS FOR USE**

The machine can be used only by an authorized operator. To prevent the machine from being used by unauthorized personnel, it is necessary to block the operation by extracting the ignition key. When the machine is not working, it should be protected from any accidental movements by pressing the emergency pushbutton or detaching the plug from the battery. While the machine is working, pay attention to strangers and in particular to children. Always keep handy the instruction and maintenance handbook on the working place of the machine. Beyond the use and maintenance instructions, observe and prepare the binding general legislative rule regarding the accident prevention and environment protection as well. This can also concern the handling of harmful materials, the availability and mounting of customized protection equipments and the compliance with the rules of the road as well. In case of modifications detected on the machine, which can compromise its safety or its operation, stop the machine immediately and inform the responsible body or person. Do not make any changes or variations on the machine which can compromise its safety, without previous authorization by the supplier. Never perform any unsafe operations. Before starting the work, become familiar with the environment of the working place. The working environment includes, for instance, any possible obstacle present in the working and transition place, the knowledge of the ground capacity in a public traffic area, etc. Comply with the prescriptions contained in the instruction and maintenance handbook, as regards to on and off operations. Before switching the machine on and starting it, check that the operation does not endanger anyone. The transport of people and things is not allowed.

## **CAUTION**

Keep in mind the following standards; failure to adhere to these rules can endanger the life of the operator or of other people. Always keep a sufficient distance from the sidewalk edges and from large differences in height of the floor where the machine can fall; never adopt a work technique that can compromise the stability of the machine. Never pass through slopes in trasversal direction; when going through a downhill road, always adjust the speed to the environment conditions. Do not turn the machine at excessive speeds, particularly if the floor is not flat.

## **CAUTION: DANGER**

Never operate the machine when stopped for special operations (setting up, maintenance, etc.). Before starting the work, check for any possible visible defects on the safety devices, and the correct operation of the emergency stop pushbutton or of the equivalent mechanism. Never operate the machine when the control panel indicates defective tools, warning lights, etc.

## **MAKE SURE THAT:**

- No strangers are present near the machine
- No strange objects (appliances, cloths, etc.) are on the machine
- The machine does not emit strange noises after its starting; if so, stop it immediately and detect the cause.

All doors and protections are regularly closed.

Never let approach strangers near the machine. Use, maintenance and repair of the machine are allowed only to operators authorized by the person responsible of the machine, who knows the manual contents. These operators should be persons physically and intellectually fit for this work, not under alcohol or drug effects.

## **CAUTION**

To clean the machine, use aggressive detergent solutions, acids, etc. only when necessary and with special care. Adhere to all instructions of the detergent manufacturer. Use protective clothes (overalls, gloves, protective glasses, etc., see CEE standards).

## **OPERATIONS ON THE ELECTRIC INSTALLATION**

The operations on the electric installation can be performed only by **QUALIFIED ELECTRICIANS**, instructed in the electric characteristics of the machine and in accident prevention rules.

## **CHECKS**

The machine must be inspected by a technician, who checks the safety conditions of the machine and any possible damages or defects visible from outside:

- before setting the machine at work
- after appropriate time intervals
- after any changes or repairs
- safety device control

## **SAFETY DEVICE CONTROL**

All six month, check the efficiency of the safety devices, the inspection should be performed by qualified personnel of FIORENTINI s.r.l. or authorized by it. To grant the efficiency of the safety devices, the machine should be overhauled by a technician of FIORENTINI every 5 years.

## **ANNUAL CHECK**

The responsible person should perform an annual check to determine if the machine complies with the technical safety standards. After this check, the responsible person should apply a test plate on the machine.

## **INFORMATION FOR USING THE MACHINE IN EXPLOSIVE ATMOSPHERE**

The machine has not been designed to work in environments in which explosive gas, powders or steams can be generated.

## **INFORMATION CONCERNING THE ELIMINATION OF HARMFUL MATERIALS (SEE CEE STANDARDS)**

### **CAUTION: DANGER**

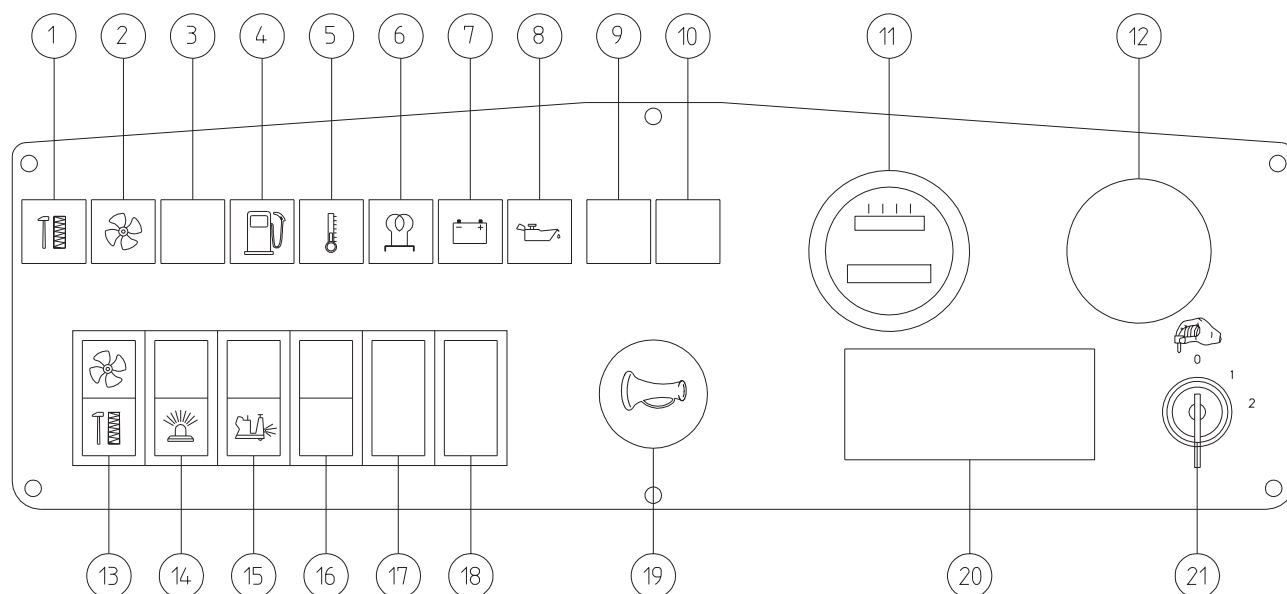
To drain the liquids used for floor scrubbing, follow the local standards concerning the elimination and purification.

## **INFORMATION CONCERNING THE MACHINE DEMOLITION (CEE STANDARDS)**

In case of machine demolition, it is important to subdivide the different types of materials composing the machine and deliver the batteries to operators authorized to their elimination.

# CONTROLS DESCRIPTION

## DASHBOARD



1) filter shaker light

2) fan light

3) motor air filter light

4) gasoil light

5) water temperature light

6) pre-heating light

7) generator light

8) motor oil light

9) direction indicators light

10) plug

11) hour meter

12) plug

13) fan and filter shaker switch

14) flashing-light switch

15) light switch

16) wind-shield switch

17) plug




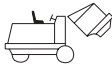

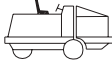





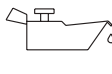


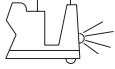
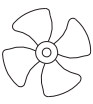
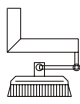
18) plug

19) steering wheel and electric horn

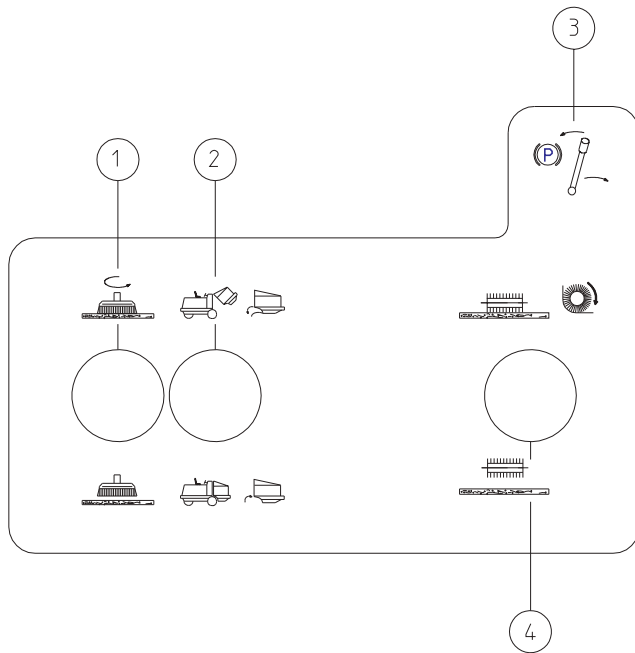
20) fuses box

21) engine start key-switch

# SYMBOLS

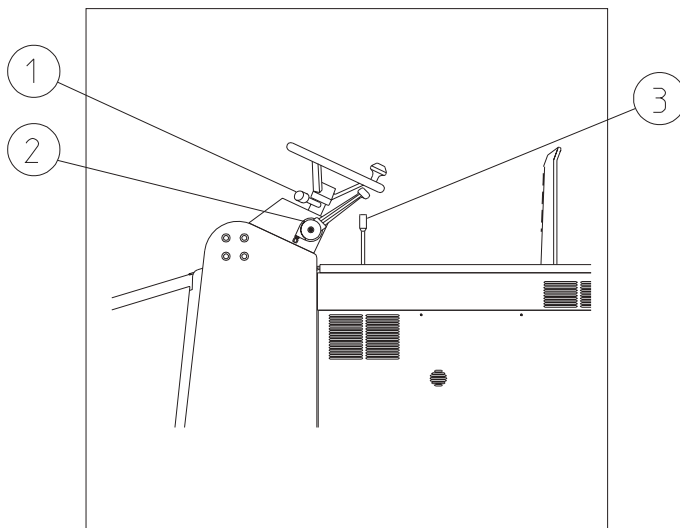
0	chiuso (spento)				rotazione spazzola centrale
1	acceso (prima funzione operativa)				scuoti filtri
2	acceso (seconda funzione)				apertura benna
	aumento graduale tramite rotazione del comando				chiusura benna
	aumento graduale tramite traslazione del comando				apertura cassone
	interruttore generale				chiusura cassone
	marcia avanti				segnalatore acustico
	marcia indietro				spia candele motore
	fusibile o salvamotore				spia pressione olio motore
	interruttore di emergenza				
	girofarò				
	fari d' illuminazione				
	vontola aspirazione				
	spazzola laterale				

**FIG. 2**



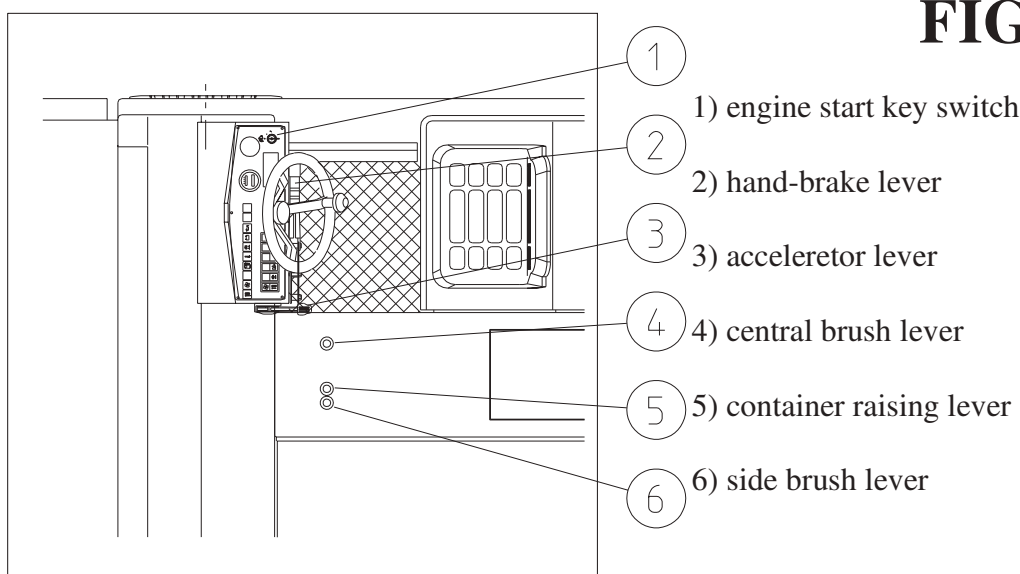
- 1) side brush control lever
- 2) container raising lever
- 3) hand-brake lever
- 4) central brush control lever

**FIG. 3**



- 1) direction indicators lever
- 2) accelerator control lever
- 3) work lever position

**FIG. 4**



- 1) engine start key switch
- 2) hand-brake lever
- 3) accelerator lever
- 4) central brush lever
- 5) container raising lever
- 6) side brush lever

# USE OF THE MACHINE

## DESCRIPTION

The UBF 48 power sweeper has been designed to perform a complete cycle of industrial and urban cleaning. The sweeping action is carried out by one or more side brushes which convey the waste towards the centre of the machine, where a central brush, a roller, sweeps it “into the hopper”. The dust is sucked up and controlled by a turbine. The air released into the environment is filtered by two panel filters. The waste collected in the hopper may be discharge into the ground or into special boxes.

## WASTE HOPPER

The hopper is fitted on the front of the machine and connected to the chassis by two levers. A hydraulic cylinder lifts and overturns the hopper when the waste is to be emptied at a height. The lower part has a hinged flap also operated by a hydraulic cylinder which closes the hopper while the waste is being discharged. A turbine creates a depression inside the hopper and in the central brush compartment. Inside it there is two panel filters each connected to filter shaker. On the front right side there is a side brush whose rotary movement is operated by a hydraulic motor, while its rise and descent is operated by hydraulic cylinder. It is possible to fit a side brush on the left side as well and a 3rd brush for corner cleaning.

## CENTRAL BRUSH

This consists of a sweeping roller whose rotary movement is operated by a hydraulic motor and whose rise and descend are manually operated by hydraulic screw jack.

## ENGINE

The engine a Diesel Lombardini FOCS 1204 drives the hydraulic system pump.

## FRONT WHEELS

- Rubber filled
- These are independent, attached to the chassis by means of a hub with brake drum incorporated.

The service brakes are hydraulic. The parking brake is mechanical.

## BACK WHEELS

- Rubber filled
- The back wheel is the driving and steering wheel. The steering is operated by a hydraulic cylinder connected to the power steering. The variable speed drive is transmitted by a hydraulic motor connected to a variable flow pump operated by a forward-backward displacement power pedal.

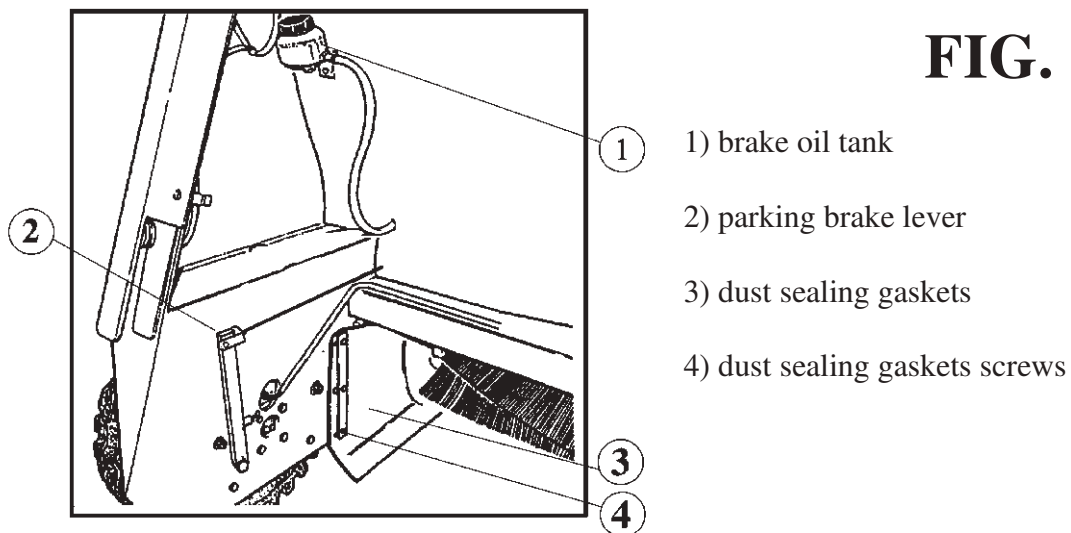
## PRELIMINARY OPERATIONS

After receiving the machine, remove the packing paying attention not to damage it. It can be used for future long transport of the machine. Immediately check the machine condition and, in case of damages due to transport, inform the carrier. Before operating the machine, carefully read the instructions contained in this booklet, especially those concerning the safety standards.

### BRAKE

The machine is equipped with parking and normal brakes. The normal brake is controlled by a pedal located in the left side of the board (fig.5). To operate the parking brake, fully press the pedal and lock the lever (fig.5) by pulling it .

**CAUTION:** the brake should be checked and adjusted at least once every three months.



## USING THE SWEEPER

### PRELIMINARY CHECKS

Before using the sweeper, perform the following preliminary operations:

- a) Check the oil level in the hydraulic control box tank. The levels is correct when it is beteween the first two notches of the level indicator.
- b) Check that there is sufficient fuel in the fuel tank.
- c) Check oil level in the engine cup.



- d) Check for any oil leaks from the hydraulic system.
- e) Check the electrolyte level in the batteries
- f) Check that all of the hatches are closed, in particular the rubbish container cover.
- g) Check that the brakes and steering functions before each trip.

#### STARTING THE ENGINE

- a) Insert the key into the switch and turn it clockwise to the first click.
- b) See if the following indicators are on: flat battery - insufficient engine oil pressure
- c) Again turn the key clockwise and release it as soon as the engine starts.
- d) When the motor is running, check that the following indicators are off: flat battery - insufficient engine oil pressure.
- e) Move the accelerator control lever forwards until the speed required for each type of engine is reached.

#### **Note:**

**Before starting the vehicle, wait 2-3 minutes so that the engine can warm up and therefore provide a perfect lubrication. With very low environmental temperatures, the engine warm up time must be suitably increased.**

#### **WARNING: DANGER**

**When the engine is running, take care not to accidentally activate the translation control pedal because the vehicle will move immediately.**

- g) To stop the engine, turn the key left to the "0" position.

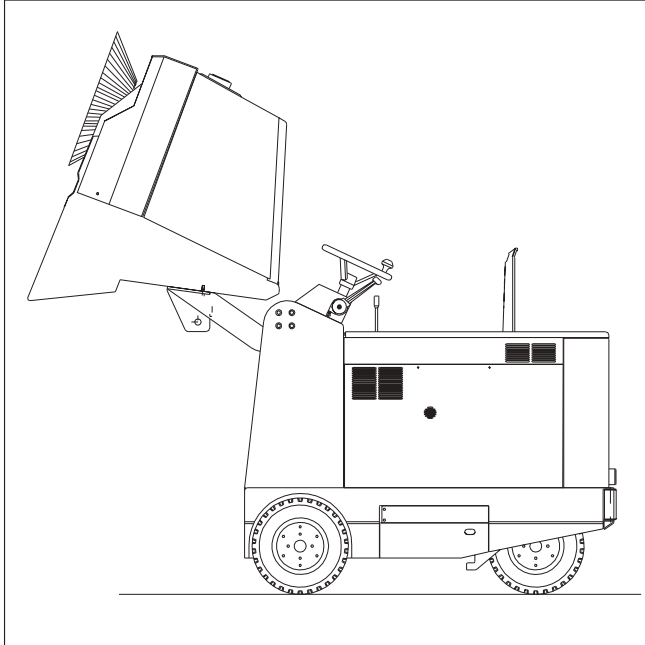
#### **NOW YOU CAN START SWEEP ACTION:**

- 1) Open the flap operating on the lever. Ensure that the flap lock gate is completely open.
- 2) Operating the central brush lever, the brush descend and begin to rotate, the suction turbine will come into operation at the same time.
- 3) Lowering the side brush operating the relative lever, the brush begin to rotate and descend.

**Operating speed recommended for the motor sweeper depending on the amount of waste to be collected.**

**During the collection phase, the rubbish should be compacted in order to maximise the load collected:**

- 1) Stop machine
- 2) Close flap
- 3) Re-open the flap and re-start the sweeper



**FIG. 6**

#### EMPTYING THE CONTAINER

When necessary, empty the container as follows:

- lift and lock the side brush
- lift and stop the central brush
- close the hopper using the lever
- shortly press the filter-shaker for a few seconds
- lift the container using the lever
- dispose the waste into the proper containers
- open the bucket to discharge the waste by the lever
- lower the container

## **ATTENTION:**

**With the hopper up, move the vehicle extremely slowly, max. speed 1Km/h. Do not empty the hopper with the vehicle on a slope.**

**During hopper emptying ensure that there are no people within the machine's radius of action.**

**Do not activate the filter shaker with the hopper in the up position.**

At the end of the working shift, stop the sweeper in the area assigned it with:

- the brushes raised
- the hopper lowered
- the parking brake on
- the lights off
- stop engine
- remove the starting key

**Never leave the hopper in the raised position**



# MAINTENANCE

## CHECKING THE BATTERY

- Check the electrolyte level
- Check the battery poles for oxidation

## OIL LEVEL

Check oil level and add if necessary:

Hydraulic oil: IDRAULICAR AP 51 FIAT or same grade of other mark

Motor oil: VS DUAL FIAT or same grade of other mark

## ENGINE COOLANT LIQUID LEVEL

50% PARAFLO FIAT or same grade of other mark

50% Water

## REGULATING THE PARKING BRAKE

- a) Loosen the locknut and adjust the tension of the wire, ensuring that the brake is not jammed.
- b) Tighten the locknut.

## CHANGING THE ENGINE AIR FILTER

When on the dashboard the motor air filter light is lighted up the motor air filter must be changed. Keep out the hooks and remove the cover, you have access to the air filter cartridge, replace it and close the cover by its hooks.

## CHANGING THE HYDRAULIC OIL FILTER OF THE GEAR PUMP

- Remove tank lid.
- Unscrew the filters from their seats inside the tank.
- Screw the new filters into place using the appropriate spanner and replace the tank lid.
- Check the oil level and top it up if required.

The hydraulic oil must be changed as described in Maintenance table

- Remove the plug and drain off the old oil
- Replace the drain plug
- Remove the filling plug
- Pour in the new oil and replace the plug
- Check that the level is between min. and max.

**Do not pollute the environment with used oils and filters.**

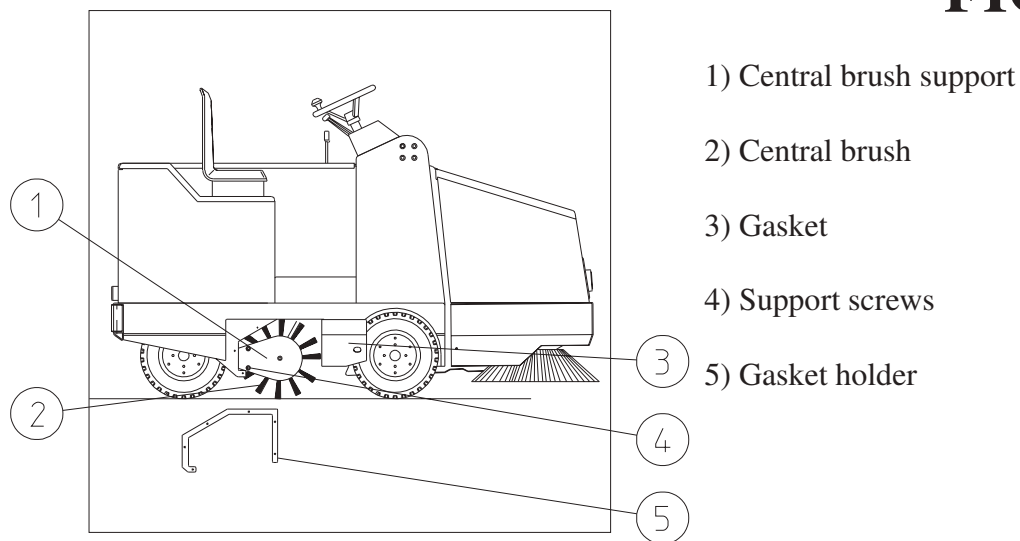
### **CLEANING OR REPLACING OF THE DUST FILTERS**

Only use original Fiorentini filters as replacements.

- Unscrew the six knobs on the chassis and replace the filter
- When cleaning or replacing the dust filter, make sure that it is correctly positioned in the container and is secured using the tie.

**To avoid the spread of dust into the environment the container cover must be in perfect contact with the container, and all of the rubber seals must be intact and correctly arranged.**

**FIG. 7**

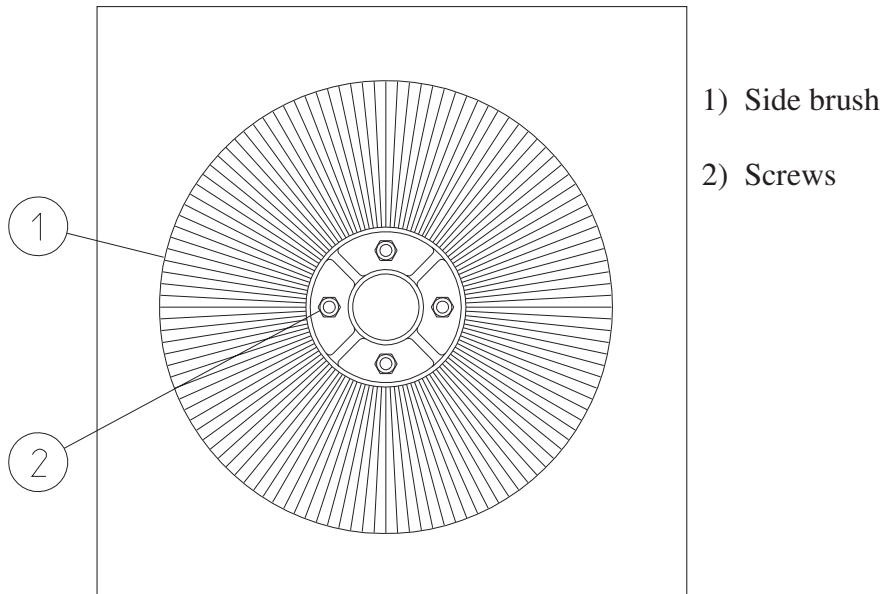


### **REPLACING THE CENTRAL BRUSH**

- Remove the screw from the gasket and move it sideways.
- Unscrew the fastening screw of the support.

- Remove the support.
- Remove the brush.
- Slide in the new brush and support.
- Re-assemble the gasket.

**FIG. 8**



### **REPLACING THE SIDE BRUSH**

- Unscrew the fastening screws.
- Remove the brush
- Replace the screws and tighten them firmly

### **HOW TO REPLACE THE SIDE RUBBERS**

- Remove the fastening screws and the rubber holders
- Fit the new side rubbers and their holders.
- Adjust them until touche the floor.
- Tighten the fastening screws.

### **FILTER-SHAKER MOTOR**

When removing the filter-shaker motor, disconnect the two terminals of the connection cables and remove the bracket.

# ADJUSTMENT

## ADJUSTING THE CENTRAL BRUSH

- Open the motor panel unscrewing the 2 screws.
- On the central brush arm there are 2 nut M16: low the brush unscrewing the nuts  
raise the brush screwing the nuts

## ADJUSTING THE SIDE BRUSH

- unscrew the knob on the side brush to increase pressure on the floor.

## TRACTION ADJUSTING OF THE FAN MOTOR BELT

- Remove the motor panel unscrewing the 2 screws. The two fan motor belts are visible
- Proceed to rotate the pulley until its two holes correspond to the two bolt placed on the motor support
- Is visible a M10 bolt that screwing it, to slide the motor block, make in traction the belt.

## LUBRICATION POINTS

### Steering wheel

Opening the seat cover is visible the greaser of the steering wheel.

### Hopper raising arm

Raise the hopper, the greasers are visible

## ENGINE

The engine drives the hydraulic system pumps and the rubbish suction fan.

For more information on the maintenance of engine, consult the instructions given in the relative maintenance manual, a copy of which is supplied with every sweeper.

**The number of revolution of the motor rpm is adjusted at 2600 rpm.**





# MAINTENANCE TABLE

Periodical checks	20 hrs	50 hrs	125 hrs	250 hrs	500 hrs	750 hrs	1000 hrs	2500 hrs	5000 hrs
Engine oil level check	x	x							
Hydraulic oil level check	x	x							
Coolant level check		x							
Brake fluid level check		x							
Air filter check	x	x							
Battery check	x		x						
Radiator fins check		x							
Alternator belt tension check				x					
Change engine oil			x						
Change fuel filter				x					
Change engine oil filter				x					
Change gear pump hydraulic oil filter							x		
Change hydrostatic pump hydraulic oil filter							x		
Check cooling circuit coupling				x					
Check alternator belt							x		
Change radiator coolant							x		
Change hydraulic oil							x		
Adjust equalizer play					x				
Calibrate and clean injectors							x		
Partial servicing endothermal motor								x	
General servicing endothermal motor									x
Moving parts lubrication check				x					
Check seals for wear		x							
Panel filter block check			x						

## TROUBLES AND HOW TO CURE

Troble	Cause	Cure
The machine run slowly	a-insufficient hydrualic oil level b-"by pass valve" open. c-insufficient pressure on translaction circuit. d-clogged translation circuit filter. e-defective pump or hydraulic motor.	a-refuel the fuel tank b-close the valve c-check and adjust the pressure d-replace the filter e-replace the pump and the hydraulic motor
The brushes run slowly	a-speed of the motor too slow b-defective pump or hydraulic motors c-insufficient pressure inside service circuit	a-increase motor speed b-replace the pump or the motors c-check and lightly increase the pressure
The brushes run at intermittence	a-Infufficient hydraulic oil level b-service and translation circuits filters clogged	a-refuel the fuel tank b-replace the filters
The machine not run	a-hydraulic translation motor stopped	a-disassemble the motor and clean its inside parts
Inside the hydraulic oil tank there is a foam	a-insufficient hydraulic oil level b-air infiltration in the vacuum tubes	a-refuel the fuel tank b-replace the tubes, to be sure that tighten the unions the functions are rightly reset
Dust outlet from machine sides	a-domaged dust rubber gaskets b-filter clogged by filter shaker failure c-flap stopped in close position	a-replace dust rubber gaskets b-replace the filter shaker c-open the flap and check the right command function
Dust outlet from fan and from cover	a-domaged filter b-filter not rightly mounted	a-replace the filter b-mount rightly the filter
Insufficient sweeping	a-excessive speed b-central brush not in contact to the floor c-central brush too weared	a-reduce the speed b-adjust the central brush c-replace the central brush

## **HYDRAULIC SYSTEM**

The hydraulic system consists of 3 independent circuits supplied by a single tank.

The first circuit is supplied by a variable delivery pump for displacement driven by an endothermal motor, which is connected to the hydraulic motor of the back wheel.

The speed of forward and backward displacement is regulated by the same power pedal, which is connected to the pump.

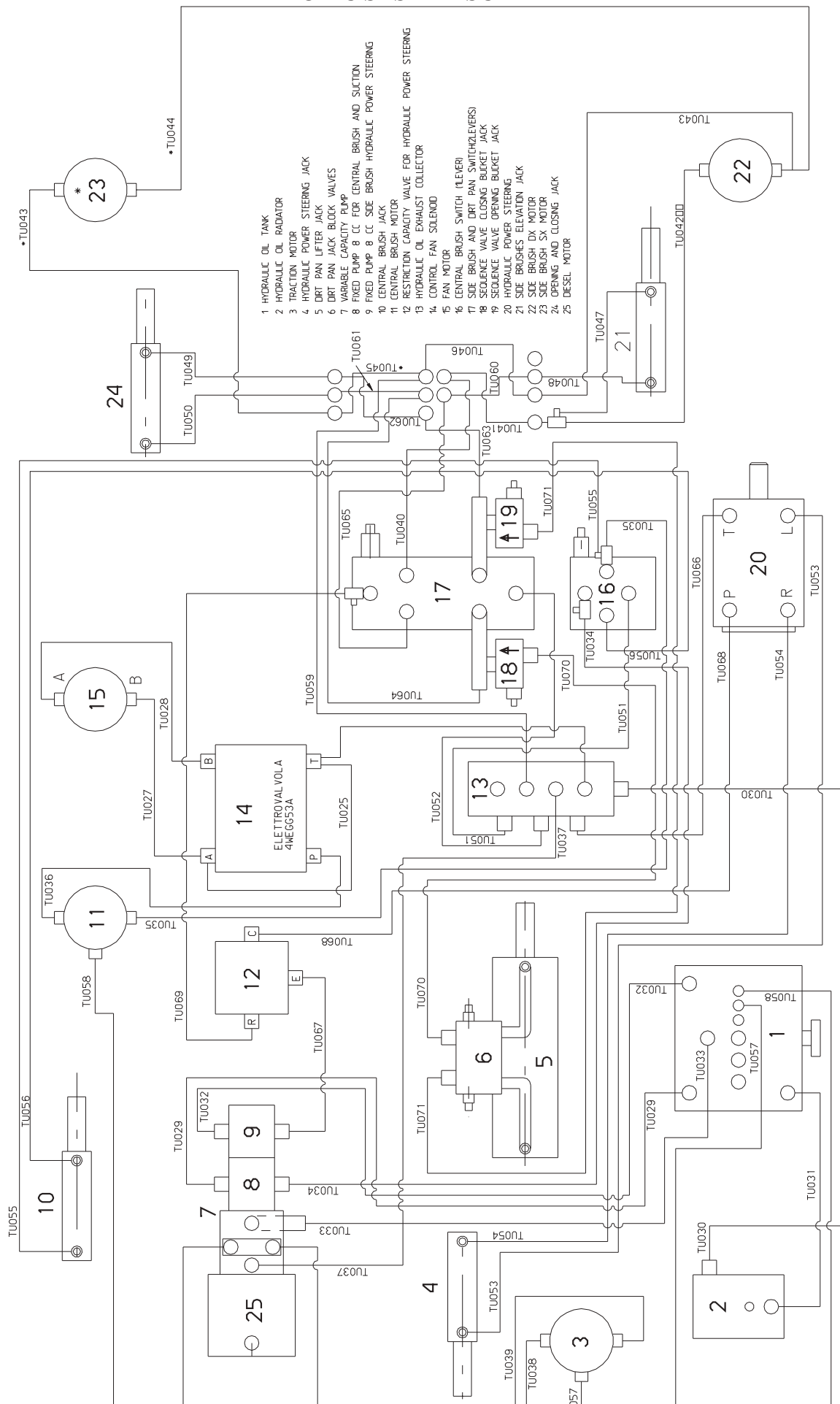
The second circuit and third circuit are supplied by a gear pump in tandem.

The circuit A gear pump uses an electric distributor to feed the hydraulic motor of the central brush and

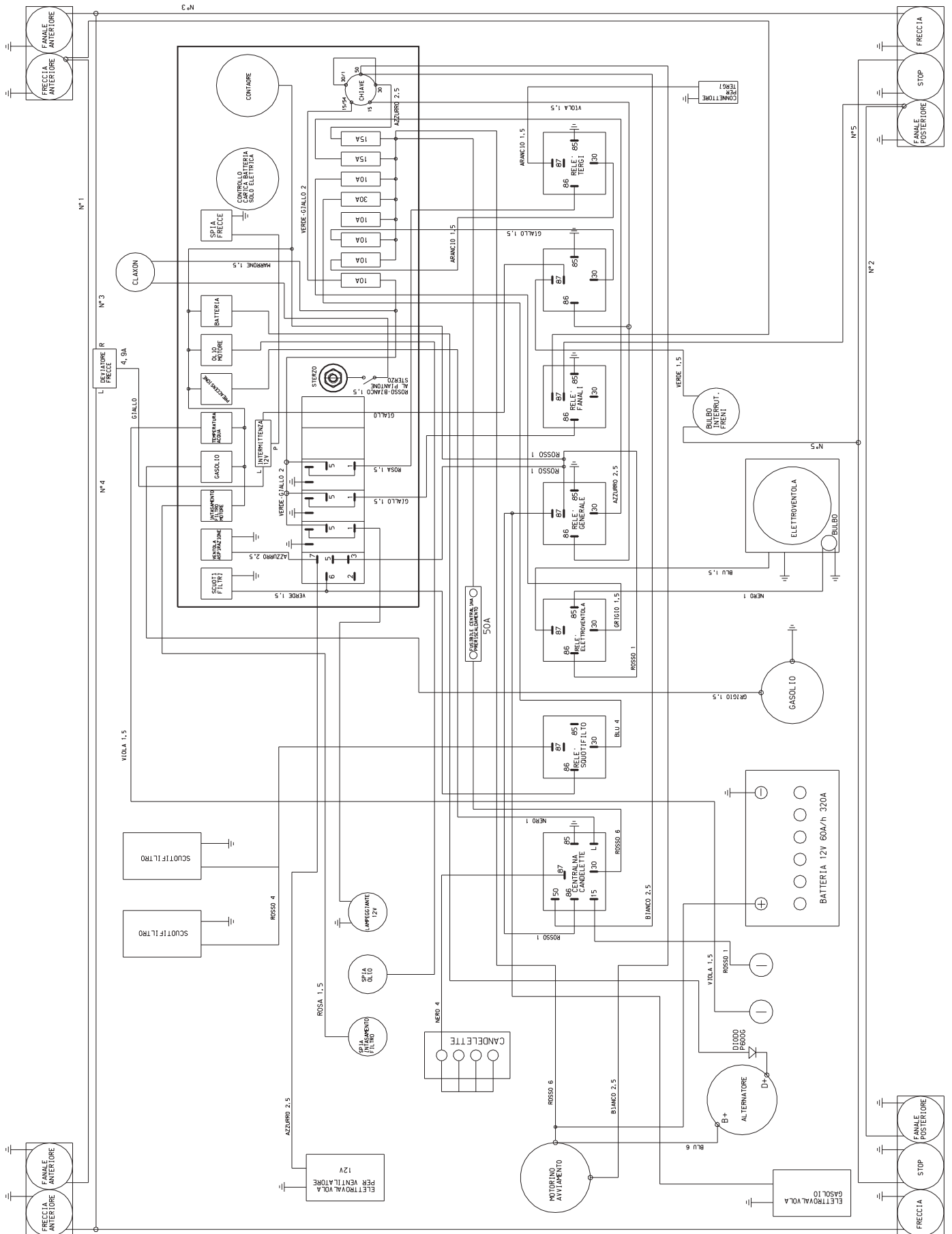
## **ELECTRICAL SYSTEM**

Electrical system supplied by an alternator operated by the Diesel engine Lombardini FOCS 1204, 12V battery. The circuits are protected by lamellar fuses housed in a special fuse box.

# HYDRAULIC SYSTEM SCHEME



## CIRCUIT DIAGRAM



**DICHIARAZIONE CE DI CONFORMITA'-DECLARATION OF CONFORMITY  
DECLARATION DE CONFORMITE-EG-KONFORMITÄTSERKLÄRUNG-  
DECLARACION DE CONFORMIDAD**

(ai sensi dell'allegato II 1.A della Direttiva **Macchine 2006/42/CE**)

**La ING.O.FIORENTINI SPA**

con sede in Via Piancaldoli 1896 Firenzuola, 50033, (FI)

**DICHIARA/DECLARES/DECLARE/ERKLÄRT/ DECLARA**

in qualità di costruttore sotto la propria responsabilità che la macchina

As manufacturer under its own responsibility that the machine

En tant que fabricant sous sa propre responsabilité que la machine

Als Hersteller, erklären, in alleiniger Verantwortung, dass das Produkt

Como fabricante, bajo su responsabilidad que la máquina



**Modello/model/modèle/Typ/modelo**

**Matricola/serial number/numero de série/**

**Fabriknummer/ Número matricula**

**Anno di costruzione /**

**Year of production/ Année de production/**

**Baujahr/ Año de producción**

a cui la presente dichiarazione si riferisce è conforme alle prescrizioni  
which this declaration refers to, is in conformity with the requirements  
à laquelle se réfère cette déclaration, est en conformité avec les prescriptions  
Auf das sich diese Erklärung bezieht, mit der normativen übereinstimmt.  
que esta declaración se refiere, está en conformidad con los requisitos

della direttiva macchine **2006/42/CE/ Directive 2006/42/CE / de la Directive 2006/42/CE / der EG-Richtlinie 2006/42/EG über  
Maschinen / De la directiva maquinas 2006/42/CE**

della direttiva compatibilità elettromagnetica **2014/30/EU/ the Electromagnetic Compatibility Directive 2014/30 / EU / de la Directive  
Compatibilité Electromagnétique 2014/30 /EU / elektromagnetische Verträglichkeit (EMV) 2014/30/EU / la directiva de  
compatibilidad electromagnetica 2014/30/EU**

della direttiva sui rifiuti di apparecchiature elettriche ed elettroniche (**RAEE**) **2012/19/UE/ Directive on Waste of Electrical and  
Electronic Equipment (WEEE) 2012/19 / EU/ de la directive relative aux déchets d'équipements électriques et électroniques (DEEE)  
2012/19 / UE / Elektrische und elektronische Geräte Abfälle (DEEE) 2012/19/UE Directiva sobre residuos de aparatos eléctricos y  
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En particulier, les dispositions réglementaires  
Gemäß den Bestimmungen der Richtlinie  
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**EN ISO 12100, EN ISO 13857, EN ISO 13850, EN 60204-1, EN 349,  
EN 953, EN ISO 4413, EN 60335, EN 60335-1, EN 60335-2-69, EN 60335-2-72, EN 55014-1, EN 55014-2,  
EN 62233, EN 61000-6-2, EN 61000-6-4**

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**Il Legale Rappresentante/president/gérant/ representante**

**Angelica Maria Cerutti**

**Piancaldoli**

***Luogo e data***

***Firma***

*Cerutti Angelica Maria*

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