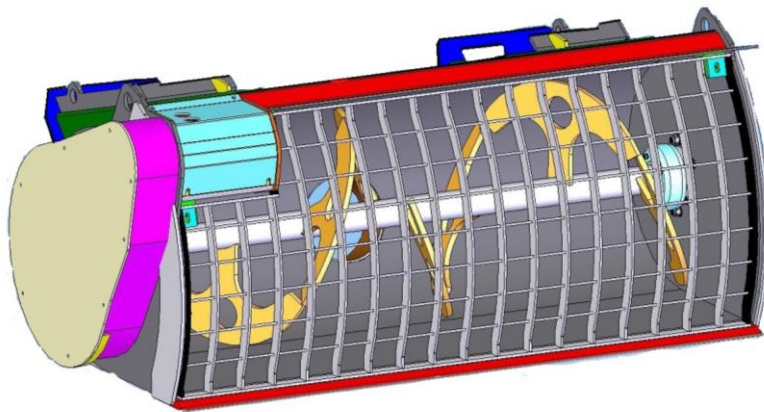




# OPERATION AND MAINTENANCE MANUAL CONCRETE MIXER BUCKET



**MODEL: 08.BM.0250- ....**  
**SERIAL NUMBER: .....**

© The reproduction or translation of any part of this manual without the owner's written consent is prohibited. The information and illustrations contained in this manual are indicative. The manufacturer reserves the right to modify the machine without notice.





## CONTENTS

<b>1. Declaration of compliance</b> .....	<b>3</b>
<b>2. Symbols and definitions</b> .....	<b>3</b>
<b>3. Safety and danger stickers</b> .....	<b>5</b>
<b>4. General use precautions</b> .....	<b>9</b>
<b>5. Technical characteristics</b> .....	<b>11</b>
5.1 Description of the bucket.....	11
5.2 External dimensions.....	11
5.3 Technical data and performance .....	12
5.4 Principal parts of the bucket.....	14
5.5 Environmental conditions .....	16
5.6 Permitted uses .....	16
5.7 Reasonable predictable improper uses .....	16
<b>6. Residual risks</b> .....	<b>16</b>
6.1 Safety devices.....	17
<b>7 Delivery and unloading</b> .....	<b>17</b>
<b>8 Handling, transport and lifting</b> .....	<b>18</b>
<b>9 Use</b> .....	<b>20</b>
9.1 Preliminary controls.....	20
9.2 “Bucket – operating machine” coupling.....	20
9.3 “Bucket with 2-line hydraulic system–operating machine” hydraulic and electrical connection .....	23
9.4 “Bucket – operating machine” 4-line hydraulic connection .....	23
9.5 “Bucket with 2 or 4 line hydraulic system–operating machine” hydraulic and electric disconnection.....	25
9.6 “Bucket – operating machine” disconnection .....	25
9.7 Implementation.....	25
9.8 General conditions of work.....	26
9.9 Packaging of the concrete.....	27
9.10 Unloading of the material .....	28
9.11 Assembly of the unloading tube .....	29
9.12 Normal arrest of the shaft with mixing spiral .....	30
9.13 Arrest of the shaft with the mixing spiral under emergency conditions.....	30
9.14 Parking.....	30
<b>10 Maintenance</b> .....	<b>31</b>
10.1 General structural integrity check .....	31
10.2 Check of flexible tubing .....	32
10.3 Control of the outlet tube wrapping .....	32
10.4 Control of the tightness of nuts and bolts.....	32
10.5 Cleaning of the bucket .....	32
10.6 Bearing greasing .....	33
10.7 Greasing of the chain .....	33
<b>11 Indications for storage</b> .....	<b>34</b>
<b>12 Putting back into service</b> .....	<b>34</b>
<b>13 Spare parts and accessories</b> .....	<b>34</b>
<b>14 Disposal</b> .....	<b>34</b>
<b>15 Troubleshooting</b> .....	<b>35</b>
<b>16 Optional</b> .....	<b>37</b>
16.1 Hydraulically opened grill .....	37
<b>17 Tables</b> .....	<b>39</b>
17.1 Maximum torques of restraint screws .....	39
17.2 Torque fittings .....	39
17.3 Torque hoses .....	39
<b>18 Command circuits diagrams</b> .....	<b>40</b>
<b>19 Spare Parts Manual</b> .....	<b>46</b>



Dear customer,

Thank you for having chosen a EI Attachment product. We are pleased to give you this manual in order to allow optimal use of our product for the improved success of your work.

Within this guide the user will find all of the information necessary for the proper use of the machine, whose trade name is specified on the cover. Please attentively follow the directions contained within it and save it carefully in an appropriate place, near the machine. The manual must be conserved for future consultations until the destruction of the machine. If the machine is sold, the seller has the obligation to deliver this manual to the new owner.

The information treated in the manual are sorted into chapters, according to a sequential order of the topics. The original information is provided by the manufacturer in the Italian language. To satisfy legislative and commercial requirements, the original information has been translated into other official languages.



*The content of this manual can be modified without warning, or other obligations, including modifications and improvements to the units already shipped.*

*For reasons of visibility and clarity, some figures may be shown with the equipment in an incorrect usage configuration.*

The reproduction or translation of any part of this booklet without written authorization from the manufacturer is prohibited.

## 1. Declaration of compliance

The declaration of compliance compiled and signed by the Legal Representative of the manufacturer.

## 2. Symbols and definitions

A brief legend of the symbols and terminology used in this booklet (those symbols deemed as most significant) is presented below.



**DANGER WARNING:** calls attention to situations or problems that can endanger personal safety through accidents or the risk of death.



**IMPORTANT:** calls attention to situations and problems connected with the efficiency of the machine that do not endanger personal safety.

**“OPERATOR”:** Means the personnel properly trained and licensed to install, start up, adjust, clean, and transport the machine.



**“MAINTENANCE TECHNICIAN”:** Means the person or persons trained and authorized to work with the machine to perform regular maintenance operations and substitutions of some components.

**“BUCKET”:** Means the interchangeable equipment described in this manual.

**“OPERATING MACHINE”:** Means the means on which the interchangeable equipment is installed. The abbreviated term “m. op” will also be used in this manual.

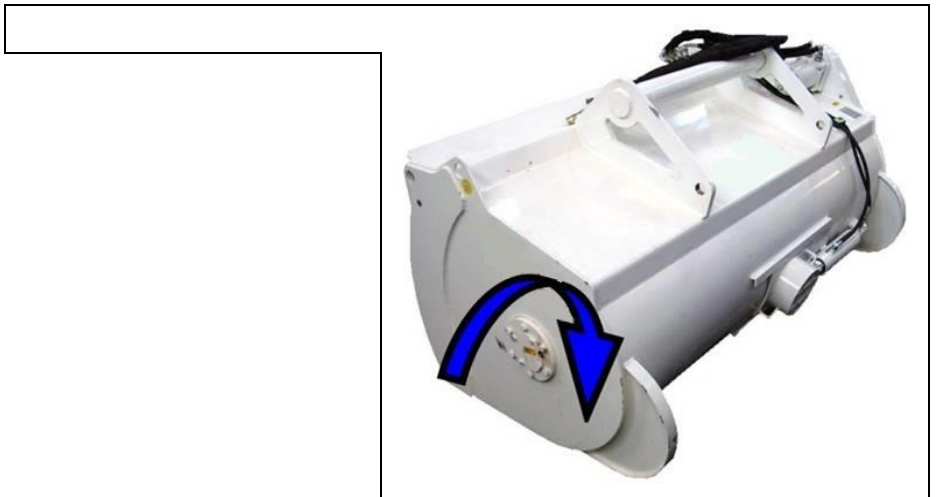
**“RIGHT AND LEFT SIDE”:** Intends the sides of the Bucket, determined by the driver’s seat of the machine operator on which it is installed.

**“FORWARD ROTATION”**

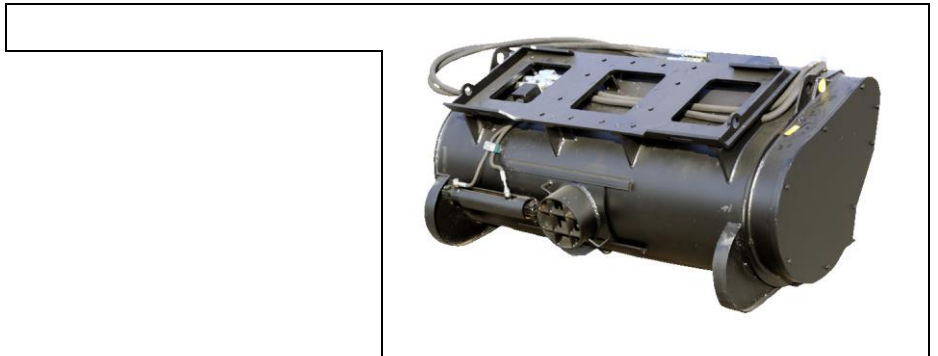
Mixing direction



**“REVERSE” ROTATION:**

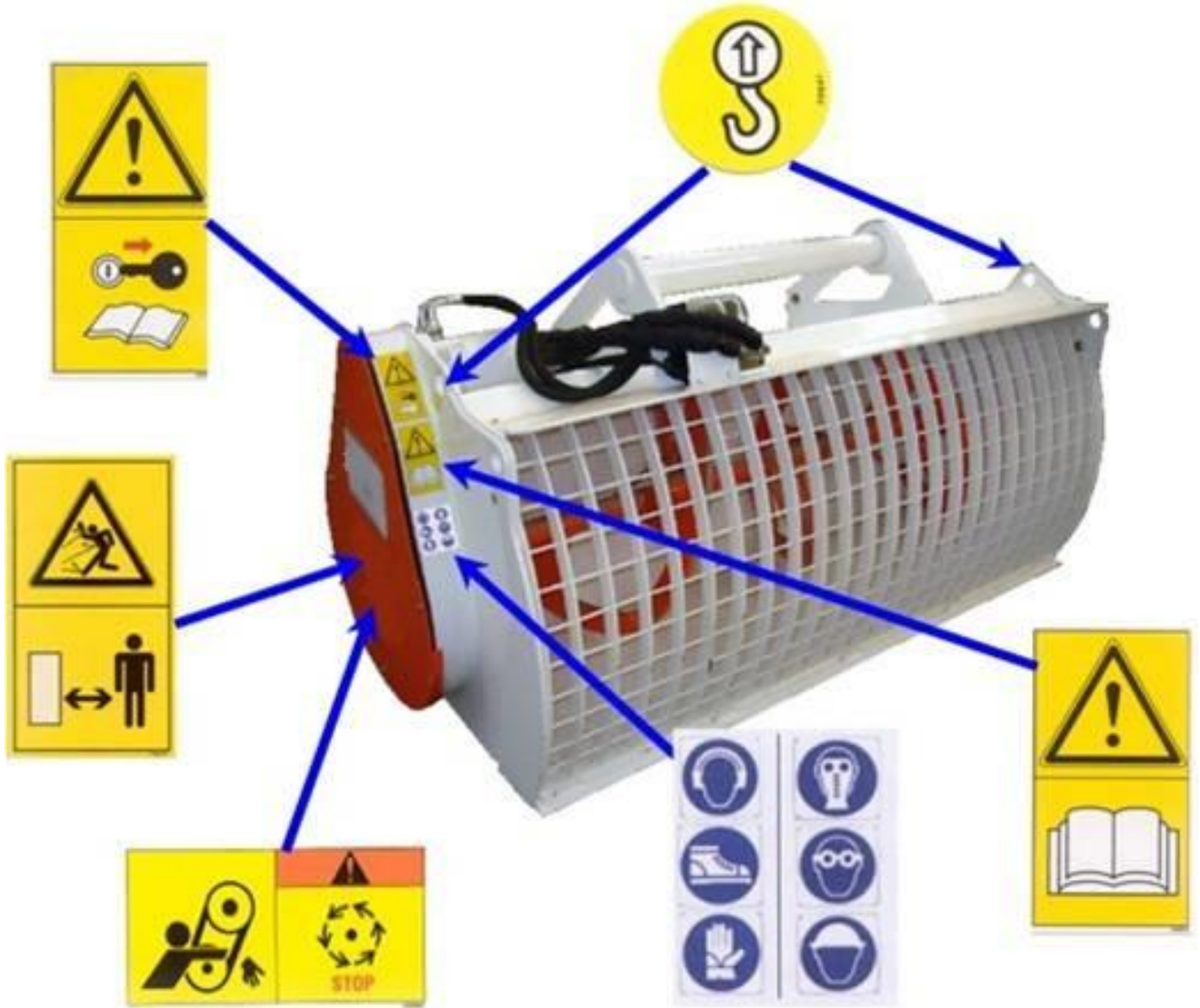


**“RESTING” POSITION:**



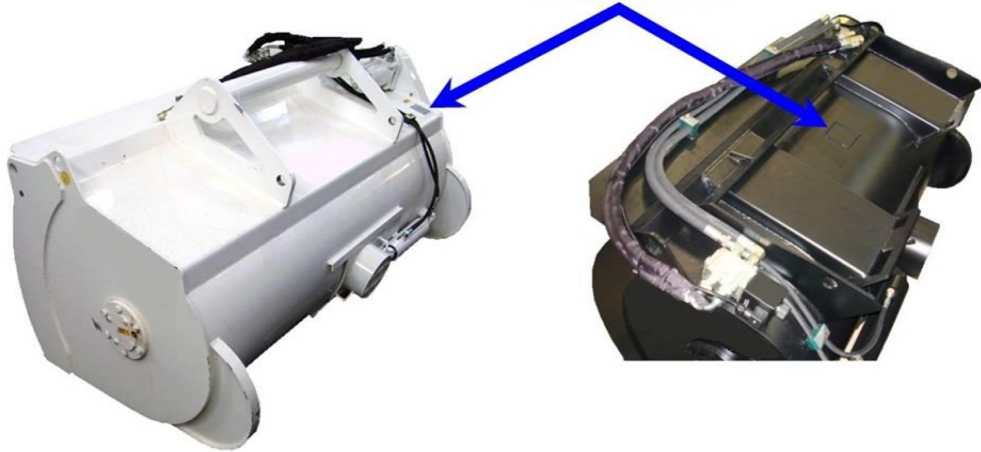
### 3. Safety and danger stickers

Position of the plate and safety and danger stickers on the bucket











**IDENTIFICATION PLATE**



**STICKERS LEGEND:**

1-		<p>Present on both sides of the machine:  <b>Warning:</b>          KEEP A MINIMAL DISTANCE OF 10 m FROM THE MACHINE</p>
2-		<p><b>Warning:</b>          CAREFULLY READ THE MANUAL BEFORE USING THE MACHINE.</p>
3-		<p><b>Warning:</b>          CAREFULLY READ THE MANUAL AND REMOVE THE KEY FROM THE PANEL BEFORE PERFORMING MAINTENANCE OR REPAIRS</p>
4-		<p><b>Obligation:</b>          IT IS OBLIGATORY TO USE THE APPROPRIATE PERSONAL PROTECTION DEVICES</p>
5-		<p><b>Warning:</b>          IT IS FORBIDDEN TO INTERVENE ON THE BUCKET BEFORE HAVING STOPPED THE MACHINE AND THEREFORE THE ROTATION OF THE MIXING SHAFT.</p>
6-		<p>Nr. 2 stickers:          HOOKING POINT FOR LIFTING</p>



7-	The CE mark logo, consisting of the letters 'CE' in a white, stylized font on a black square background.	CE plate
----	--	----------





*Respect the warnings stated by the plates and decals. Failure to comply may cause death or serious harm. **Ensure that the plates and decals are always present and legible.** Otherwise apply or replace them, requesting them from the manufacturer.*

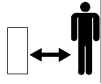


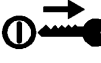





#### 4. General use precautions

 	<ul style="list-style-type: none"> <li>• The operator is entrusted with the safe operation of the bucket.</li> <li>• Carefully read this manual before proceeding with installation, start-up, or maintenance operations, or carrying out other interventions on the machine. This manual must be flanked by that of the operating machine to which the bucket will be applied (e.g. mini excavator, backhoe loader, wheel loaders, excavators, etc.).</li> <li>• The present manual is designed to bring the fundamental requirements and criteria to be followed in the installation and maintenance of the bucket to the attention of the installer through figures and text.</li> </ul>
--	---

#### To operate safely, you must:

	<ul style="list-style-type: none"> <li>• Check that the Bucket has not been damaged during the transport phase and, if it has, immediately alert the manufacturer or regional representative.</li> <li>• Only grant use of the Bucket to authorized adult personnel with adequate professional preparation.</li> <li>• Ensure that the operating machine that the bucket will be connected to has the "man on board" safety devices and that they are fully functional.</li> </ul>
 	<ul style="list-style-type: none"> <li>• Maintain a safe distance for personnel not working with the Bucket when it is operation (at least 10 meters of distance). Delimit the working area.</li> <li>• Cease activity in the case of intrusion of people or animals within the working area.</li> <li>• Periodically clean the bucket, eliminating foreign material that could damage operation or injure the operator.</li> </ul>
	<ul style="list-style-type: none"> <li>• Ensure, before using the bucket, that all of the safety devices are correctly placed in position and are in good condition; whenever the protections fail or are damaged, replace them immediately. The removal of the rear protective plate during working operations (loading, tamping, unloading) is prohibited.</li> <li>• Be sure to have correctly attached the tubes and fittings.</li> </ul>
 	<ul style="list-style-type: none"> <li>• Carry out maintenance operations only after having put the machine in the resting position, separated it from the operating machine, read the instruction manual and having removed the ignition key from the operating machine.</li> <li>• Any repairs must be carried out only by qualified personnel with the use of original spare parts. Otherwise, the user may be subjected to serious danger.</li> <li>• Tube and fitting verification operations should be carried out with appropriate safety devices (goggles, gloves, and protective clothing for contact with the skin).</li> <li>• Do not leave the Bucket installed to the operating machine unattended in the work environment.</li> </ul>



- Do not wear garments that can get hitched in moving parts, such as inappropriate clothes, scarves, gowns, etc. Instead, the use of approved accident-prevention garments is recommended, including: anti-slip shoes, protective earphones, safety goggles, and protective gloves. Consult the employer about the safety requirements and the necessary accident prevention devices.
- Avoid wearing rings, bracelets, necklaces, watches, and scarves.
- Keep long hair pulled back.



## 5. Technical characteristics

### 5.1 Description of the bucket

The mixer bucket is equipment designed for preparing concrete, mortar, cement or semi-dry, and is applicable to most of the following machinery:

- Mini-excavator.
- Backhoe loader.
- Wheel loaders.
- Telescopic movers.
- Excavators.

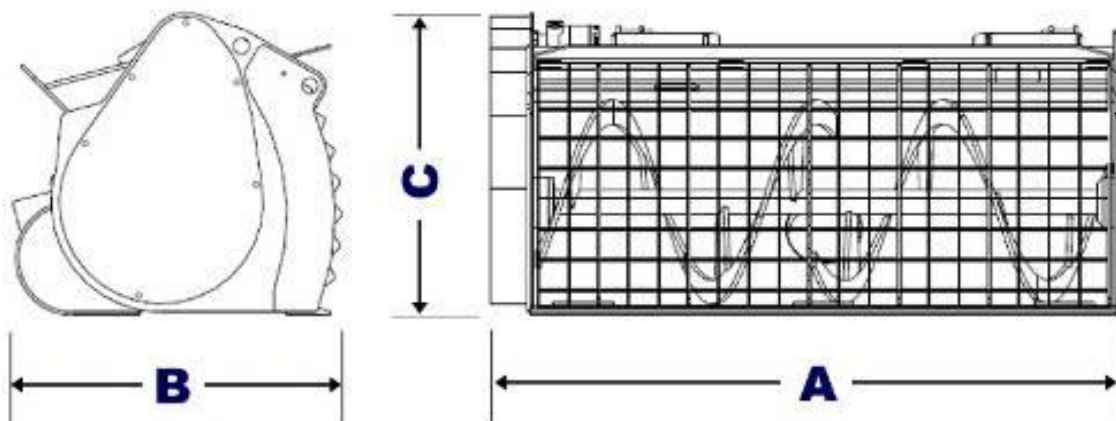
The mixer shaft generates a convective movement of the material by rotating clockwise around its axis; the material is perfectly mixed in this way thanks to the particular design of the propellers. The shaft receives its motion from an orbital hydraulic motor connected by a transmission chain.

The material is constantly pushed toward the center, where it can be unloaded from a central port that can be hydraulically opened.

The bucket is solidly mounted to the operating machine through a coupling of a form dependent upon the machine. The hydraulic potential also comes from the hydraulic system of the operating machine and the connections are made through rapid hydraulic couplings.

All of the bucket's functions are controlled by the commands existing on the operating machine, sometimes integrated by an electrical system installed on the operating machine.

### 5.2 External dimensions





08.BM	A	B	C
150	1260	760	580
200	1260	810	665
250	1480	784	696
350	1580	865	760
450	1630	890	810
600	1900	1005	905
700	1900	1120	1000
1100	2150	1250	1130
1500	2244	1326	1185
2000	2744	1349	1185

### 5.3 Technical data and performance

Technical characteristics	Measurement unit	Models										
		08.BM 150	08.BM 200	08.BM 250E	08.BM 250	08.BM 350	08.BM 450	08.BM 600	08.BM 700	08.BM 1100	08.BM 1500	08.BM 2000
Operating pressure	Bar	140	140	160	160	160	140	140	140	200	200	200
Pressure												
Continuous	Bar	140	140	172	207	207	140	140	140	205	205	205
Intermittent		170	170	207	241	241	200	200	200	225	225	225
Peak		215	215	224	276	276	300	300	300	240	240	240
Oil capacity	L/min	25	25	40	40	50	50	70	70	110	200	200
Max oil capacity												
Continuous	L/min	30	30	61	85	85	85	75	75	114	114	114
Intermittent		40	40	76	90	90	90	115	115	151	151	151
Bucket weight (*)	kg	260	275	380	380	425	425	630	750	1000	1700	2100
Bucket weight when filled to the brim SAE (Mc) (**)	Kg	645	825	1040	1040	1305	1550	2390	2730	4080	5220	7050

(\*) The value indicated in the table is relative to the weight of the bucket without attachment. The total value of the bucket with attachment will be indicated in the CE label.

(\*\*) The value was calculated considering that the material (concrete) has a max specific weight of 2200kg/m<sup>3</sup>.



THE OPERATIONAL LOAD OF THE OPERATING MACHINE ON WHICH THE BUCKET WILL BE INSTALLED MUST CORRESPOND TO THE FOLLOWING FORMULA:

$$M_c - M_b \leq \text{Operating machine operational load}$$

**M<sub>c</sub> = complete weight of the bucket when filled to the brim SAE**

**M<sub>b</sub> = standard original weight of the operating machine**

EXAMPLE OF CALCULATION OF THE APPLIED HYDRAULIC POWER:

$$\frac{Q \text{ (L / min)} \times P \text{ (bar)}}{450} = A \text{ (cv)} / 1.36 = A \text{ (kW)}$$

**Legend:**

**Q = Capacity**

**P = Pressure**

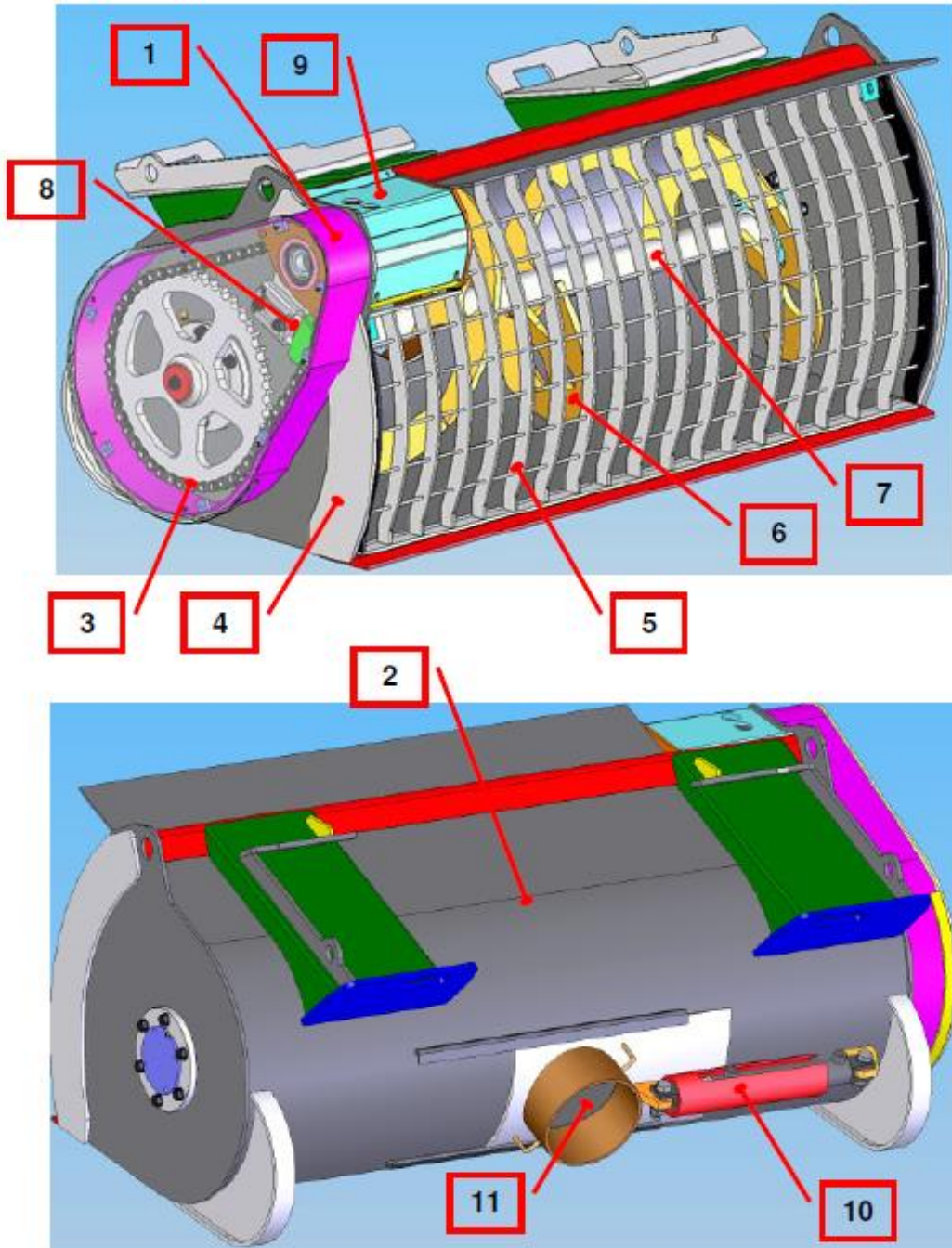
**A = Power**

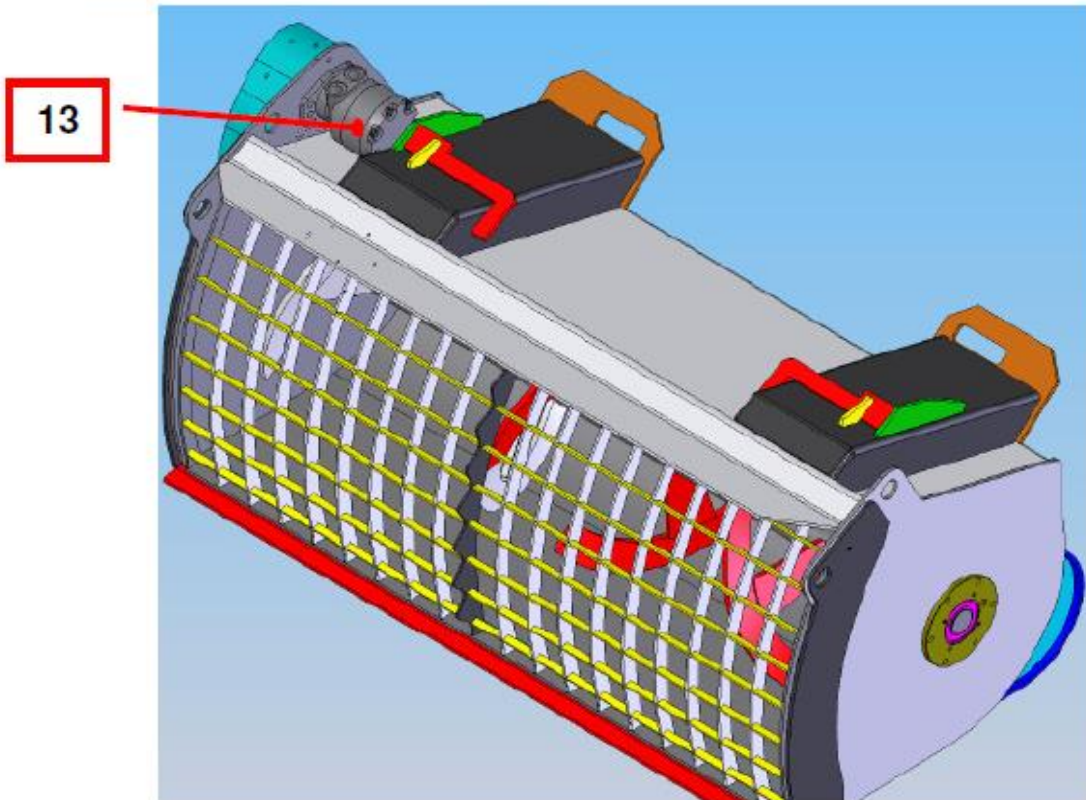
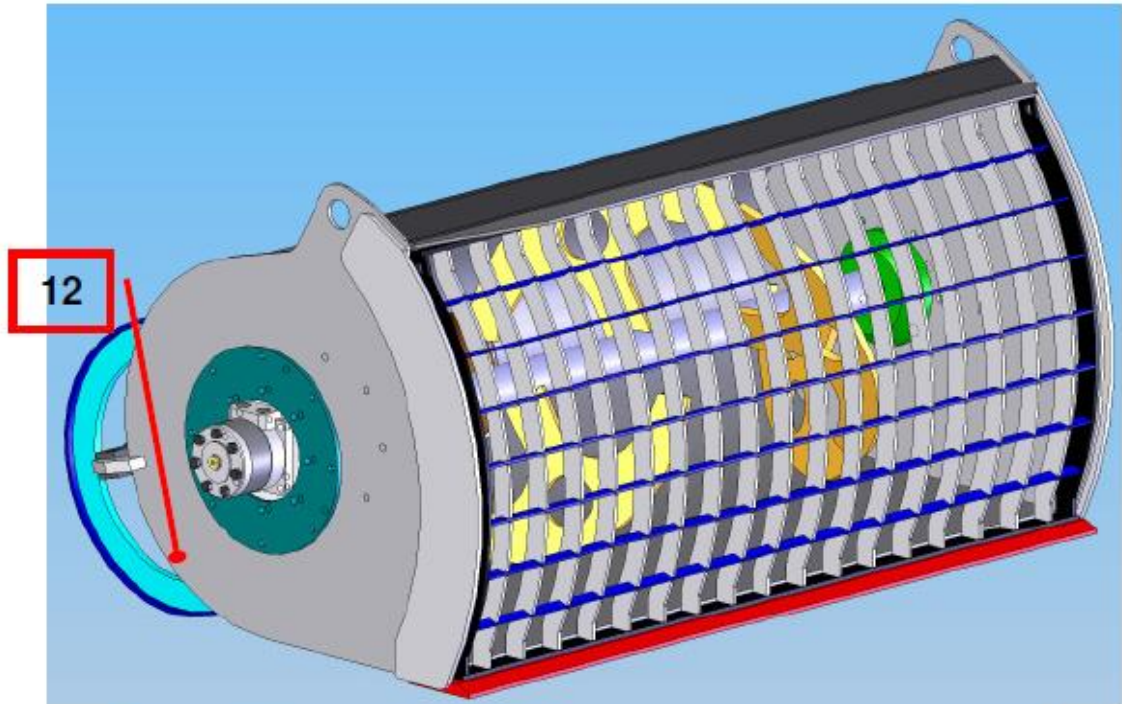
**Note:** The capacity and pressure reported in the preceding formula must be measured at exactly the same time with a precision instrument by experienced staff.

The exact description of the "Model" and the "Identification number" will facilitate rapid and effective responses from our Assistance Service (local reseller, authorized workshop, etc.).

### 5.4 Principal parts of the bucket

- |                                     |   |
|-------------------------------------|---|
| 1- Protection carter;               | 7- Mixing shaft;                                    |
| 2- Operating machine coupling area; | 8- Chain tending device (not present on mod. 250E); |
| 3- Transmission chain;              | 9- Motor seat;                                      |
| 4- Bucket body;                     | 10- Exhaust blower opening shaft;                   |
| 5- Anterior protection grill;       | 11- Exhaust opening.                                |
| 6- Mixing propeller/helix;          | 12- Motor (mod. 08. BM 150 and 08.BM 200);          |
|                                     | 13- Motor (mod. 08.BM 350);                         |







### 5.5 Environmental conditions

Under conditions of temperatures less than -10°C, before operating the Bucket, verify that the operating machine has brought the hydraulic circuit to temperature.

The use environments must conform to the regulations governing hygiene and safety.



- Do not approach the bucket with open or other types of flames.**
- Do not use the bucket in places where there are risks of explosion and fire.**

### 5.6 Permitted uses

The bucket is intended to be mounted on an operating machine to carry out the preparation of concrete. The maximum diameter of the particles is to be considered so that the mixing is of 20÷30 mm.

The use of the bucket is only permissible if mounted on an operating machine that is declared to be in compliance with the directive in force and existing legislation, and that it is appropriate for the technical characteristics of the Bucket to be installed, indicated in paragraph 6.3.

### 5.7 Reasonable predictable improper uses

The mixing of bitumen is absolutely prohibited, as well as the use of the bucket for grinding, towing, or piling of material and the transport of people and/or animals.

It is strictly forbidden to slip hands and insert any tool or stick into the bucket.

Any use other than that expressly indicated is to be considered misuse and is therefore not allowed.

The manufacturer is free from all responsibility for any misuse of the bucket and for any modification or variation made upon it.



- The usage of the bucket for uses other than those indicated in this use and maintenance manual is absolutely prohibited**
- Parking, transit, and working on floors and on any other non-load bearing structure is prohibited.**

## 6. Residual risks

During the use of the bucket, the following risks can occur:

- risk of inhalation of dust produced by the mixing;
- risk of ejection of debris (rocks, blunt objects, etc.);

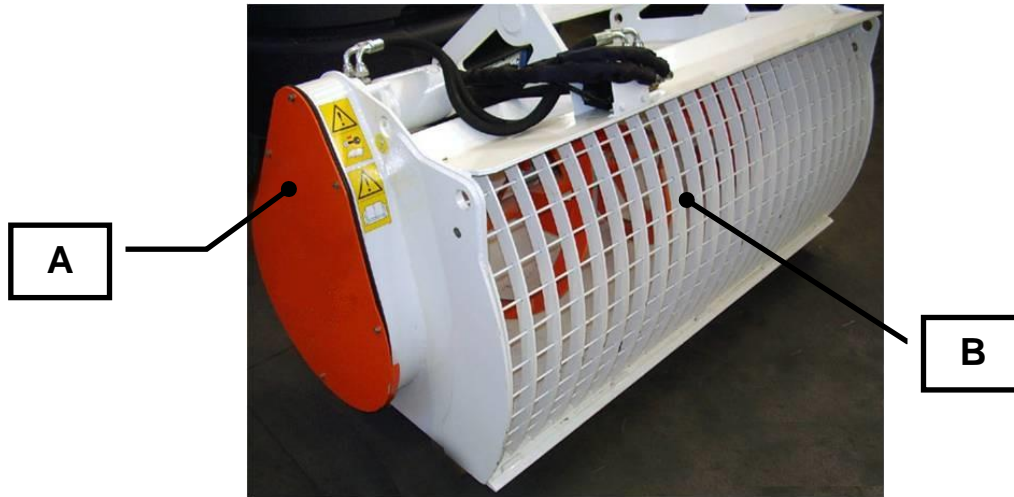
For people who pause near the bucket during work, the following can be created:

- risks deriving from shocks and/or entanglement caused by accidental contact with the bucket;
- risk of crushing between the bucket and the operating machine;
- risk of ejection of debris (rocks, blunt objects, etc.);
- risk of inhalation of dust produced by the mixing;
- risk of falling material (work on slopes or flat areas at different heights).



## 6.1 Safety devices

The mixer bucket is equipped with a front protection grill bolted to the frame ref. "B" which is protective from the movement of the mixing shaft. For the parts relative to the transmission bodies, a carter fixed firmly to the frame ref. "A" contains the belt and the gears.



- **The removal of the front grill and the access carter to the transmission bodies is absolutely prohibited while the mixer bucket is operational.**



- **Removing or tampering with the present safety devices is absolutely prohibited.**

## 7 Delivery and unloading

The bucket is normally transported and delivered on a pallet, well-fixed, in a stable position, duly lined with cellophane and secured with restraints. The type of packaging, however, may depend on the means of transport and the destination. For shipments by air, the bucket is packaged within a special wooden crate. All of the material sent is checked before delivery to the customer.

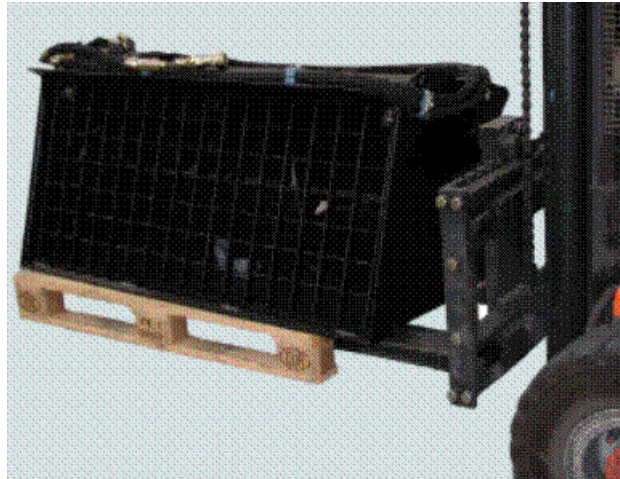
*Upon receipt, check the bucket for any damage (relevant breakages or scrapes) due to transport. In case this has happened, it must be immediately brought to the attention of the transport company and the clause "**Conditionally accepted**" must be attached to the delivery note.*

*In case of damage, contest the fact to the transport company through a report written within 8 days from the receipt of the bucket.*



*At the time of the delivery, major damage of notable importance caused during transport, together with any missing parts that are noticed, must be promptly communicated to manufacturer.*

*It is also necessary to check the material received with respect to what is reported in the shipment invoice.*



The unloading of the package must be executed with the utmost care through lifting equipment of the appropriate capacity (e.g.: fork lift truck or other adequate means). Subsequently, deposit everything on a stable and flat surface.



*The handling of cargo must be carried out in compliance with the regulations for safety in the workplace*



*Do not throw the packaging away in the environment, but follow the regulations in the country of use*

## 8 Handling, transport and lifting

For the bucket weight calculation, please refer to Table 5.3



***In the absence of a specific traffic approval for the operating machine, the bucket must be disassembled from the operating machine before traveling on roads open to traffic.***

***Inside the construction side, only small movements can be made with the bucket mounted on the operating machine, at a very low speed, with the bucket close to the ground with the arms of the operating machine as collected as possible, keeping a safe distance from people and things.***

***The bucket must be disassembled from the operating machine before climbing with the operating machine on loading ramps.***

**Movement** for brief stretches (within the work environment):

A- Use the operating machine, leaving the bucket attached.

B- Secure the bucket on a pallet, and move it with the help of a lifting truck or pallet mover.

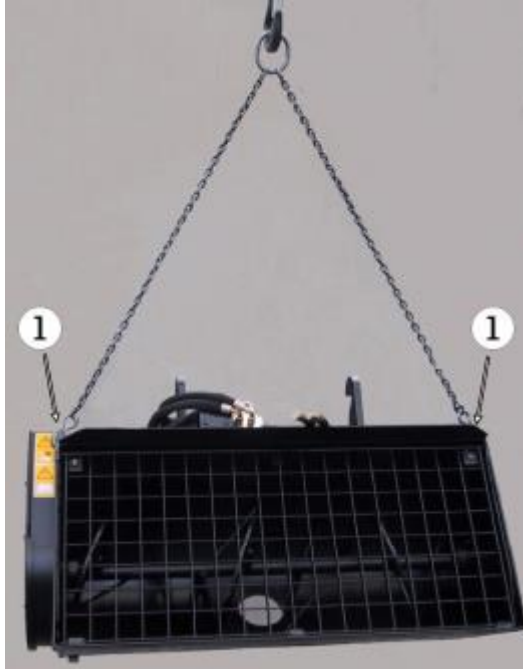
**Movement** for long stretches:

- Secure the bucket on a pallet, and move it with the help of a lifting truck or pallet mover, to load it on the means of transport (truck, train, etc.).

**Lifting** from one plane to another (e.g. to load it on a truck):



- Use a lifting crane or a lifting truck of a suitable capacity with respect to the mass indicated on the CE label. Connect the ropes or chains at the two points indicated on the appropriate stickers (see sec. 4 and image below). For lifting, use hooks bearing the CE mark.



*Check the compatibility of the capacity of the ropes, chains, and in general, of every means of lifting and transport used, with the bucket mass indicated in the CE label.  
Keep the bucket near to the ground (safe height of 0,5 m) during lifting, with it connected to the operating machine.  
Transfer is only permitted on flat or slightly uneven ground, without stability being compromised.  
Check the appropriate conditions of the pallet on which it will be stored.*



## 9 Use



*It is the installer's responsibility to verify the appropriate technical characteristics of the operating machine, with relation to the bucket model applied (see Par. 5.3).*

*The bucket should only be installed on operating machines that are declared compliant with the Directive 98/37/CE in force (e.g.: equipped with a "man on board" device for the inhibition of the operation of commands in the absence of the operator from the driver's seat, etc.).*

### 9.1 Preliminary controls

Before proceeding with the connection of the bucket, execute the following controls on the operating machine:

- A. check the correct operation of the safety devices present;
- B. check on the bucket and on the operating machine, where present, the state of the rapid connections and all of the other components concerned with coupling to the operating machine;
- C. check on the presence of suitable means of illumination of the work area (work spotlights).

### 9.2 "Bucket – operating machine" coupling

The mixer bucket must be installed on the arm of the operating machine in the bucket post, through different types of couplings. It is therefore necessary to follow the procedures indicated in the operating machine's manual (specific section for equipment application).

Example of operations to follow for a type of coupling (universal for Skid Loader) under the ISO 6165 regulation.

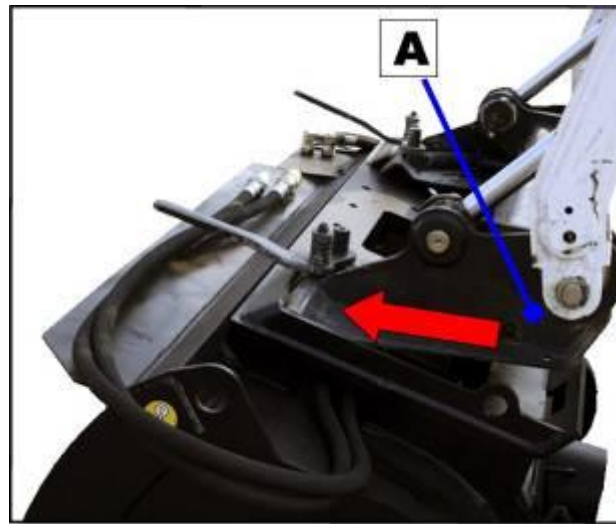
**1-** Place the mixer bucket on the ground, in the resting position, on level and compact ground far from ditches, combustibles or other deposits, and electrical cabins (fig. 1 opposite)



**fig. 1**

**2-** Approach it with the operating machine, slowly lowering the forearm shovel, so as to position the coupling plate (ref. "A" in fig. 2 opposite) below the lips present on the bucket (hooking zone of the bucket, see sec. 5.4).

Advance until resting against the lips, as in figure 2 opposite.



**fig. 2**

**3-** Operate the hydraulic movements of the op. m so as to draw the attachment plate toward it (ref. "A" in fig. 2 to the side) until it completely supports the coupling zone of the mixer bucket, as indicated in fig. 3 opposite.



**fig. 3**

**4-** Turn off the op. machine and remove the starter keys.  
A second operator on the ground will push the two levers (figures 4 and 5 opposite) to connect the rapid coupling locking pins. Check that the levers are locked in the restraint position and that the pins enter the block perfectly. Otherwise, repeat the operations indicated above.



***Lift the bucket from the ground only after having completed the operations described above.***



**fig. 4**



**fig. 5**



### 9.3 “Bucket with 2-line hydraulic system – operating machine” hydraulic and electrical connection

For the connection of the tubing to the operating machine, proceed as follows:

- 1- release the system pressure (see the operating machine manual);
- 2- connect the 2 flexible tubes of the motor through the rapid coupling joints (see later) (ref. “1” fig. 6);
- 3- connect the bucket electrical cable (ref. “2” fig. 6) to the operating machine;
- 4- Check for any oil leaks:
  - a) climb into the operating machine and start the engine;
  - b) operate the auxiliary tool command lever to increase the pressure in the tubes;
  - c) turn off the engine, remove the ignition keys, climb down from the operating machine, and check for the presence of any signs of leakage near the flexible tubing fittings.

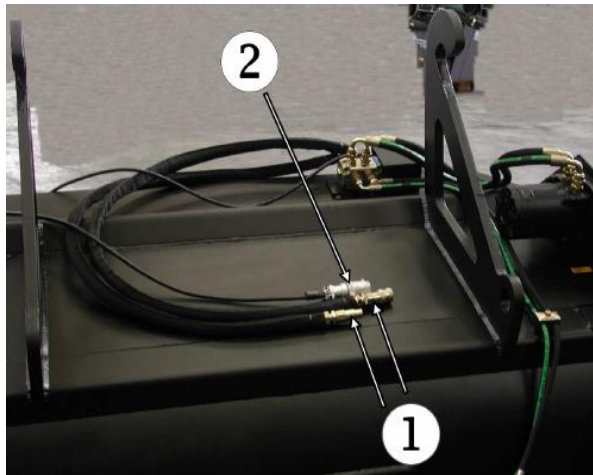


Fig. 6



*The connection is carried out through flexible hydraulic tubing; avoid dangerous intertwining of the tubes, ensuring that they are not crushed or pulled during working movements.*

*Residual burn risk: the hydraulic oil, the tubing and the fittings can reach extremely high temperatures with or without the bucket applied. Use appropriate personal protective equipment.*



In the case of rapid screw connections, make sure that they have been properly and completely screwed on. If possible, we recommend flat-face quick couplings with a snap safety ring nut.

### 9.4 “Bucket – operating machine” 4-line hydraulic connection

For the connection of the tubing to the operating machine, proceed as follows:

- 1- release the system pressure (see manual of the operating machine);
- 2- connect the 2 flexible tubes of the motor through the rapid coupling joints (see later) (ref. “1” fig. 7);
- 3- connect the 2 flexible tubes of the cylinder exhaust blower (ref. “2” fig. 7) through the rapid coupling joints (see later);
- 4- Check for any oil leaks:
  - a) climb into the operating machine and start the engine;
  - b) operate the auxiliary tool command lever to increase the pressure in the tubes;
  - c) turn off the engine, remove the ignition keys, climb down from the operating machine, and check for the presence of any signs of leakage near the flexible tubing fittings.

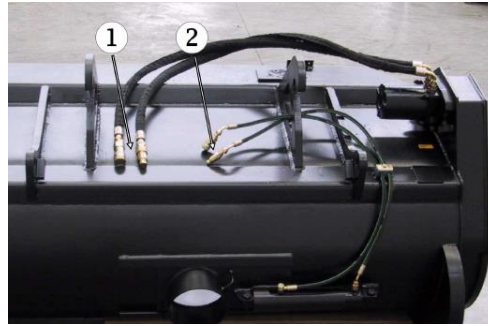


Fig. 7



*The connection is carried out through flexible hydraulic tubing; avoid dangerous intertwining of the tubes, ensuring that they are not crushed or pulled during working movements.*

*Residual burn risk: the hydraulic oil, the tubing and the fittings can reach extremely high temperatures with or without the bucket applied. Use appropriate personal protective equipment.*



In the case of rapid screw connections, make sure that they have been properly and completely screwed on. If possible, we recommend flat-face quick couplings with a snap safety ring nut.

**For the connection of flat-face rapid connections**, proceed as follows (ref. in fig. 8):

- A- Engage the male coupling Ref. "3" with the female coupling Ref."1" until the automatic release of the ring nut Ref."2";
- B- Rotate the ring nut Ref."2" so that the notch Ref."5" does not coincide with the circle Ref."4". thus eliminating the possibility of an undesired disconnection.

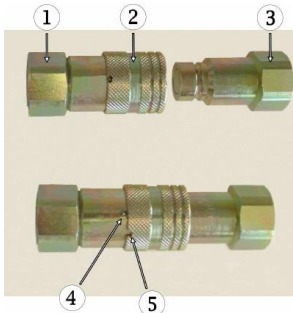


Fig. 8

Flat-face rapid couplings with snap safety ring nut are depicted in the figure.



*Thoroughly clean all of the rapid connections, both of the bucket and of the operating machine, before connecting them.*

*If pressure remains in the tubing of the operating machine for any reason, it will not be possible to insert the male rapid connection in the female rapid coupling.*

*Follow the operating machine manufacturer's instructions to release the pressure.*





## 9.5 “Bucket with 2 or 4 line hydraulic system – operating machine” hydraulic and electric disconnection



**Before leaving the operator post on the operating machine, make sure to have supported the bucket on flat ground, removed the ignition keys from the dashboard and to have stabilized the operating machine.**

**Residual burn risk: the hydraulic oil and the tubing can reach extremely high temperatures with or without the machine applied. Use appropriate personal protective equipment.**

For the disconnection of the flexible tubing, proceed as follows:

- 1- shut down the engine;
- 2- release the pressure from the system;
- 3- climb down from the op. machine and disconnect the rapid coupling joints (see specific part later);
- 4- disconnect the bucket electrical cable (ref. “2” sec. 9.3) where present.

**For the disconnection of the flat-face rapid connections**, proceed as follows (for the indicated references, see fig. 5 in sec. 9.5):

- Rotate the ring nut Ref.”2” so that the notch Ref.”5” coincides with the circle Rif.”4” and then push it toward the notch, thus achieving the disconnection of the joint.

## 9.6 “Bucket – operating machine” disconnection



### **IMPORTANT:**

**Ensure that the HYDRAULIC DISCONNECTION (sec. 9.5) has already been carried out as well as the ELECTRICAL CABLE DISCONNECTION where present (sec. 9.5)**

Example of operations to be followed for a type of coupling (universal for Skid Loader) under ISO 6165 regulation (refer to the figure in sec 9.2):

- 1 Place the mixer bucket on the ground, in the resting position, on level and compact ground far from ditches, combustible or other deposits, and electrical cabins (fig. 1 sec. 9.2);
- 2 Stabilize the operating machine (e.g.: with parking brake, stabilizing supports, etc.), turn off the diesel engine and remove the ignition key;
- 3 Climb down from the operating machine and pull the two levers (figures 3 - 4 sec. 9.2) to remove the locking pins;
- 4 Return to the operating machine, start the engine and act on the operating machine’s hydraulic drive commands so as to put the bucket forward again, until the attachment plate of the operating machine detaches from the lips. Slowly proceed in reverse to free the operating machine from the bucket.

## 9.7 Implementation



**Before implementing the bucket proceed with the following controls:**

- check for the absence of leaks from the hydraulic circuit;
- check for the correct mechanical connection;
- check for and possibly eliminate any foreign material;
- check for the correct operation of the safety devices;
- check that the emergency stop buttons present on the operating machine are not activated.

The activation of the bucket (rotary motion with the spiral shaft) can only occur through the commands of the operating machine. Turn on the motor of the operating machine and wait a moment with the motor on, until the oil arrives at the optimum temperature and any air bubbles present in the hydraulic system are expelled; Act on the commands of the operating machine to activate the shaft with the mixing blades.

On the 4-hydraulic line operating machines, it is possible to simultaneously activate the rotation of the spiral



and the opening/closing of the port. On the 2-hydraulic line machines, the activation of the spiral with respect to the opening/closing of the port must be alternated.



- *The operating machine or that they are at least **10 meters** away. Delimit the working area.*
- *The operator must not work under the influence of alcohol or drugs that reduce physical and psychological capacities. He must never leave the bucket unattended without leaving it safely stopped and removing the ignition keys.*
- *Always work at a safe distance from open excavations and/or near slopes and edges*
- *Pay particular attention to possible oil leakages during work phases.*
- *Check that there are no obstacles or hindrances on the work surface.*
- *At the end of work, stop the motion of the bucket.*



**IMPORTANT:**

The bucket, mounted, performs movements imposed by the operating machine.

### 9.8 General conditions of work

- A- Move the bucket close to the material;
- B- Place the bucket with the blade parallel and in contact with the ground;
- C- Load the material in the bucket, slowly advancing with the operating machine;
- D- Once the material has entered, withdraw the bucket, lifting it slightly from the earth;
- E- Stir the material by turning the mixer spiral a few turns "**FORWARD**" (see definition sec. 2);
- F- Slowly advance toward the position in which you want to mix the material, taking care to keep the bucket very close to the ground;
- G- Once in the chosen position, activate the rotation of the spiral (see indications in Sec. 9.6) and proceed to the preparation of the concrete, as indicated on the following page.



***Do not overload the bucket with material, so as to keep it from escaping from the top mixing is started.***



**NOTE: FOR THE COMMANDS REFER TO THE OPERATING MACHINE MANUAL.**



**If the spiral becomes blocked**, try to unblock it by reversing the direction of rotation of the shaft (through the commands on the operating machine). If after some of these attempts, the bucket remains blocked, try to upset the bucket by throwing out a bit of material.



## 9.9 Preparation of the concrete



**The preparation phase of the concrete must be done with one operator in the cab and a second operator on the ground. Start the operations only after having stabilized the operating machine, acting on the brake or other stationary devices (where present).**



**Never take away the protection grill during processing for any reason. Never put hands through the mesh of the protection grill during mixing, nor sticks or tools to loosen material from the sides of the bucket.**



**Immediately halt rotation in case of excessive force on the spiral, metallic noises coming from the motor or bearings, or in the case of breakage of a hydraulic tube.**



**Move by hand the mixing shaft only after having disconnected the energy feeding and having lowered the bucket on the ground in a stable position.**

- A) Operator in op. m cab:** perform the appropriate command in the cab and keep the spiral moving in the “FORWARD” sense (toward mixing), keeping the revolutions of the operating machine’s motor at 50% of the maximum speed. Check that the bucket is not too full. A quantity of inerts that leaves the mixing blades uncovered by at least 20 mm is considered ideal;
- B) Operator on the ground:** pour the necessary quantity of cement inside the bucket (fig. 9);
- C) Operator on the ground:** pour water in quantities dependent on the consistency required by the mix being careful not to pour it in all at once, but gradually (fig. 10).



fig. 9



fig. 10

- D) Operator in op. m cabin:** gradually increase the revolutions of the motor until 75% of the maximum speed, never exceeding 30-32 turns of the spiral.

Especially in the early stages of mixing, it could happen that the still-compact material collects in the center and tends to escape from the bucket. It can also happen that the spiral is blocked due to any stones that were inserted between the bottom of the bucket and the mixing blades. In these cases, stop the rotation and reverse the sense for a couple of revolutions so as to level or shake up the material. Then return to the “FORWARD” direction of rotation and after a few moments the material will be stirred up and won’t stop any more at the center, but will generate a convective movement by its fluidity that will cause it to fall from the center of the bucket to the sides where it will be retaken by the spiral and returned to the center, thus obtaining an optimal mix of components.



Particular types of mixes, such as the so-called semi-dry mix, can require more reversals of the direction of rotation, always to be made with the precautions listed below.



Do not reverse the rotation in a sudden way, but leave the hydraulic command in the neutral position for a couple of seconds. This will preserve the driving force from the simultaneous overpressure in the branches of the delivery and return that would involve the breakage of the flanges.

Never exceed two rotations in the “**REVERSE**” direction because the reverse direction of rotation pushes the material toward the sides of the bucket, creating two very critical situations:

1) The excessive pressure of the material tends to deform, albeit slightly, the sides, causing the detachment of mechanical seals and therefore the passage of contaminant material to the bearings;

2) The resistance to rotation by the sides generates an exponential increase in the operating pressure required, until the achievement of the operating machine maximum valve calibration value. This value is such as to provide serious damage to the bucket’s orbital motor, until the rotor breaks.

### 9.10 Unloading of the material

After having prepared the material (concrete), the operator must approach the unloading point with the operating machine, being careful to always keep the bucket a few centimeters from the ground to avoid triggering dangerous pitching phenomena. The prepared material can be unloaded:

**a)** by turning over the bucket (fig. 11);

**b)** through the unloading port with (fig. 13) or without tube (fig. 12)



fig. 11



fig. 12



fig. 13



**Always move with the bucket lowered when it is full. If unloading needs to be done from up high, stop in a flat position, engage the handbrake and ensure that there is nobody underneath the bucket.**

To operate the cylinder of the unloading port on the operating machine with 4 hydraulic lines, act on the appropriate command in the cab, which operates the hydraulic line connected to the cylinder itself.

In the case of an operating machine with 2 hydraulic lines, perform the following:

- 1) press the button in the cab that gives power to the magnet of the electro-hydraulic selector;
- 2) operate the command of the hydraulic line connected to the bucket to open and close the port (Note: During the operation of the lever, the aforementioned button can remain pressed);
- 3) remove the current from the magnet, releasing the appropriate button and restoring the direction of rotation forward. In this way the material will be pushed out through the unloading port.



For operating machines with 2 hydraulic lines, during the opening and closing operations of the cylinder, the rotation of the mixing shaft is interrupted.

### 9.11 Assembly of the unloading tube



**The assembly of the unloading tube must be performed by a second operator. Keep the ground operator at a safe distance and start the operations only after having stabilized the operating machine, using the brake and other stationing devices (where present).**

**a) Operator in m. op cab:** raise the bucket with the port parallel to the ground at approximately 1,20 m from the ground;

**b) Ground operator:** insert the terminal of the hopper in the tube of the unloading port and rotate the terminal of the hopper so as to insert the hooks in the eyes, as indicated in the sequence below:





c) **Ground operator:** lead the hopper through the appropriate handle.



**Do not stop under the bucket during the attachment of the hopper and during unloading. Do not restrain the handle during the opening of the port.**

### 9.12 Normal arrest of the shaft with mixing spiral

For arrest under normal conditions, the commands on the operating machine must be acted upon, decelerating the diesel motor to the minimum and interrupting the flow of the hydraulic oil. In this way it has a complete and immediate arrest.

### 9.13 Arrest of the shaft with the mixing spiral under emergency conditions

For an arrest under emergency conditions, it is enough to intervene on the devices present on the operating machine. Example:

- emergency stop button;
- lifting of the operator from the driver's seat (where an emergency micro-switch is present);
- lifting of the operator's armrest (where an emergency micro-switch is present);
- shut down of the diesel engine through the appropriate start-up and turn-off key.



**For more precise information on arrest modes, consult the instruction manual of the operating machine.**

### 9.14 Parking

Lower the bucket to the ground, stop the diesel engine of the operating machine, use the brake or other stationing devices (where present) and remove the ignition key.



**Every time that a working cycle ends, make sure that the bucket is supported on the ground in the resting position.**

**Stop in an appropriate place, where there are no risks of damage to the bucket. In the case that you go away from the bucket, it is obligatory to remove the keys from the operating machine and it is necessary to ensure that no other unauthorized person gets on board and uses it.**



## 10 Maintenance



1. All of the maintenance, inspection, and cleaning interventions on the bucket must be executed with it separated from the operating machine and positioned on the ground (see the responsible person in the table of the maintenance intervals);
2. The maintenance operations must be carried out in the appropriate place according to the safety regulations;
3. Before proceeding with maintenance, accurately clean the bucket (see section 10.5);
4. Appropriate personal protective devices must be used during all installation phases.
5. Upon completion of the maintenance work, all of the bucket's safety devices must be repositioned in the correct use configuration.

### Periodic Maintenance Table

Maintenance interval	Operation	Modality	Responsible
EVERY 200 HOURS	•GENERAL STRUCTURAL INTEGRITY CHECK	Sec.10.1	OPERATOR
EVERY 8 HOURS	•GREASING	Sec.10.6	OPERATOR
EVERY 8 HOURS	•CLEANING OF THE BUCKET	Sec.10.5	OPERATOR
EVERY 8 HOURS	•FLEXIBLE TUBING CHECK	Sec.10.2	
EVERY 8 HOURS	•CHECK WRAPPING OF THE UNLOADING TUBE	Sec.10.3	OPERATOR
EVERY 200 HOURS	•CHECK THE RETAINING NUTS AND BOLTS	Sec.10.4	OPERATOR



When carrying out maintenance, if in doubt, and to order spare parts and for complex maintenance works, contact your authorized dealer.



**The movement operations of the loads should be carried out in compliance with the regulations on safety in the workplace**

### 10.1 General structural integrity check

Thoroughly wash the bucket before the control. Visually inspect the integrity of the structure, verifying that there are no structural weakness (cracks in welds, holes in the structure, etc.). If weaknesses or small cracks are noticed, the authorized dealer must be contacted for a thorough check.

**Always avoid working in the presence of anomalies.**

**NOTE: THE MIXING BLADE AND THE BOTTOM OF THE BUCKET ARE CONSIDERED BODIES SUBJECT TO WEAR AND ARE THEREFORE NOT PART OF THE GUARANTEE.**



**Before leaving the operator post on the operating machine, ensure that the area is flat, that the operating machine has been stabilized, that the bucket is lowered to the ground, and that the ignition keys have been removed from the dashboard.**



### 10.2 Check of flexible tubing

Check the wear of the tube fittings and the state of the flexible tubing. If a tube has losses, signs of aging, is broken, swollen, or has abrasions, etc. it must be replaced.

Guidelines for the replacement of a tube:

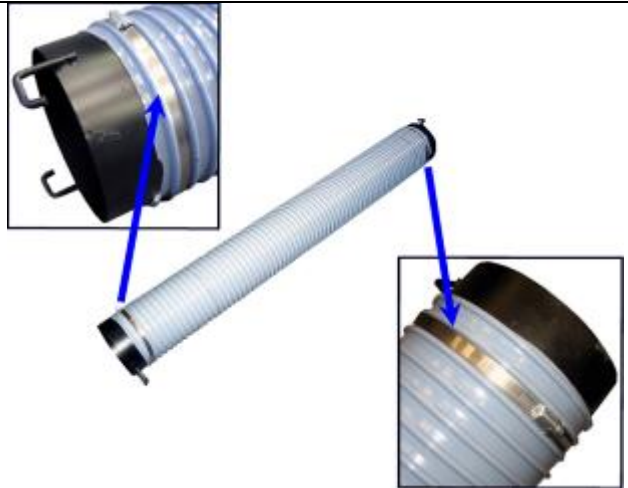
1. Clean the area of intervention, to prevent the entry of dirt in the hydraulic circuit
2. The substitution must be carried out by a maintenance technician, who must use the necessary accident-prevention devices.
3. The new tube must have the same characteristics and dimensions as the preceding tube.

**ATTENTION:** the new tube must be built to withstand the pressure indicated on the CE label

For the restraint torques, see the table in section 17.

### 10.3 Control of the outlet tube wrapping

For each use, check the state of the wrappings (indicated in the opposite figure) on the outlet pipe for the unloading of the concrete.



### 10.4 Control of the tightness of nuts and bolts

Check the tightness of all the nuts and bolts and if there are loose parts, they need to be fastened. For the restraint torques see the table in section 17.

### 10.5 Cleaning of the bucket



**OPERATION TO BE PERFORMED WITH THE BUCKET RESTING ON THE GROUND, SEPARATED FROM THE OPERATING MACHINE**

Wash the bucket after each use, being careful to remove all material deposits, especially near the bearings of the mixing shaft, and the hydraulic and electrical connections. It is suggested to spray the inside of the bucket with oil or gas to avoid that the material remains attached to the bucket. Clean the bucket with a jet of pressurized water. Use appropriate personal protective equipment.

The washing water along with the other liquids used must be disposed of according to the regulations.



### 10.6 Bearing greasing

Grease the bearings through the two greasers fastened on the sides of the bucket (see photo 14).

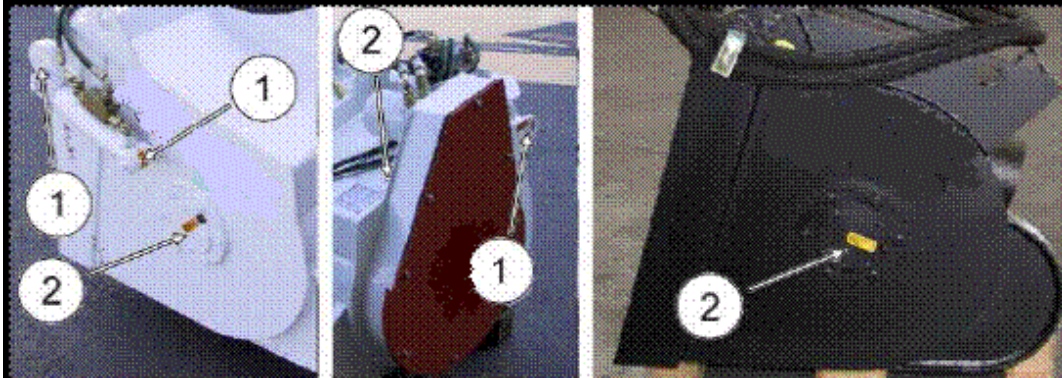


Fig. 14 – Greasing points

*(Point 1 = only bucket with hydraulic grill - Point 2 = common to all buckets)*

The greasing must be strictly carried out upon every new use of the bucket, at least every 2 working hours and before any storage.

It is important to slowly rotate the mixing shaft while proceeding with greasing, to allow a uniform distribution of the grease and to create a barrier effect against contaminants.

Use only high-quality grease.

### 10.7 Greasing of the chain

Grease the transmission chain every 200 working hours, in the following way:

a) Loosen the bolts and remove the cover (see fig. 15);

b) Grease the chain along its entire length (fig. 16)



fig. 15

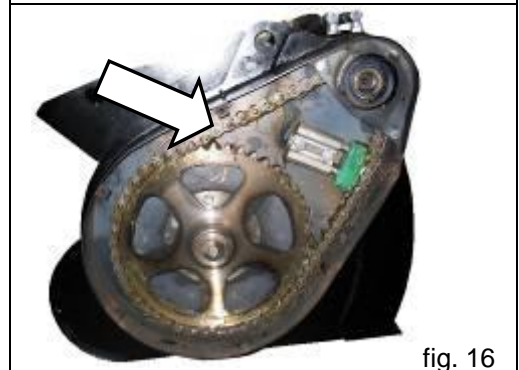


fig. 16

**Other extraordinary maintenance operations, such as the substitution of the mixing shaft or the rotation bearing, must be performed by qualified personnel. Contact your dealer .**



## 11 Indications for storage

If the bucket is not going to be used for a long period, it should be stored in an environment that protects it from the weather and possible impacts.

Position the bucket on a pallet, in a stable position, and do the following:

- thoroughly wash it;
- control and eliminate any oil leaks;
- control and substitute damaged parts;
- protect the bucket from dust with a cloth;
- demarcate the zone where the bucket is placed to prevent people from accidentally hitting corners or sharp parts.

## 12 Putting back into service

Before putting the bucket back in service after a long period of inactivity, carry out the following controls:

- control and possibly eliminate any oil leakages;
- control the integrity of the flexible tubing;
- control any parts that are poorly attached, worn or missing;
- control the tightness of nuts and bolts;
- grease the points indicated in sec. 10.6.

## 13 Spare parts and accessories

For spare parts or accessories, contact your dealer or an authorized workshop. To facilitate the warehouse search and the shipment of spare parts, clients are asked to abide by the following rules and always specify:

Model, serial number, and construction year of the bucket.

Number of pieces desired

## 14 Disposal



In case of disposal of the bucket or parts of it (oil, flexible tubing, plastics, etc.), abide by the regulations in the country in which this operation is carried out.



## 15 Troubleshootings

The aim of this paragraph is to provide the user with solutions to the problems (malfunctions) that occur most often. Do not carry out maintenance or repair interventions that alter the safety of the bucket.



*The remedies marked by the letter **A** require the intervention of an authorized workshop.  
The remedies marked by the letter **P** require the intervention of Qualified Personnel.  
The remedies marked by the letter **O** can be put into practice by the operator.*

ANOMALY	PROBABLE CAUSE	POSSIBLE REMEDY	
THE ESPIRAL DOESN'T TURN	DFFECTIVE RAPID CONNECTORS	REPALCE CONNECTORS	<b>A</b>
	BROKEN CHAIN/BROKEN TENSIONER	REPLACE CHAIN/TENSIONER	<b>A</b>
	BLOCKED HYDR. MOTOR	REFER TO THE AUTHORIZED WORKSHOP	<b>A</b>
	BLOCKED BEARINGS	REFER TO THE AUTHORIZED WORKSHOP	<b>A</b>
LOW PERFORMANCE SLOW MIXING	HYDRAULIC MOTOR FLANGES/SEALS	REFER TO THE AUTHORIZED WORKSHOP	<b>A</b>
	INSUFFICIENT HYDRAULIC PRESSURE AND/OR FLOW	BE SURE TO HAVE CORRECTLY CARRIED OUT ALL OF THE CONNECTIONS NECESSARY FOR THE OPERATION WITH THE BUCKET. REFER TO THE ASSISTANCE CENTER OF THE OPERATING MACHINE ON WHICH THE HYDRAULIC PRESSURE DEPENDS..	<b>A</b>
	HYDRAULIC TUBES CRUSHED	REPLACE HOSES	<b>P</b>
VIBRATIONS	SCREWS AND BOLTS LOOSE OR MISSING	CONTROL THE RESTRAINT TORQUES OF THE SCREWS OR BOLTS (SHAFT, HYDRAULIC MOTOR, ETC.). REPLACE MISSING SCREWS.	<b>P</b>
BUCKET HYDRAULIC MOTOR NOISY OR BLOCKED	PROBLEMS INSIDE MOTOR	REFER TO THE AUTHORIZED WORKSHOP	<b>A</b>
METALLIC SOUNDS DURING WORK	BLOCKED BEARINGS	REFER TO THE AUTHORIZED WORKSHOP	<b>A</b>
	CHAIN SLOW / TENSIONER IS BROKEN OR LOOSED	REGULATE THE TENSION OF THE CHAIN / ADJUSTAR TENSIONER OR REPLACE IT.	<b>P</b>
THE UNLOADING PORT DOESN'T OPEN	ELECTRO-HYDRAULIC SELECTOR BLOCKED	REPLACE SELECTOR	<b>A</b>
	CURRENT DOESN'T ARRIVE TO THE MAGNET	CHECK THE ELECTRICAL CONNECTIONS. CONTROL THE ELECTRICAL SYSTEM OF THE OPERATING MACHINE	<b>P</b>
	MAGNET/BURNT COIL	REPLACE MAGNETO / COIL	<b>P</b>
	DAMAGED HOSES	REPLACE HOSES	<b>P</b>



<b>ANOMALY</b>	<b>PROBABLE CAUSE</b>	<b>POSSIBLE REMEDY</b>	
IT IS NOT POSSIBLE TO GREASE THE BEARINGS	COPPER TUBE DISCONNECTED FROM GREASER	RESTORE THE CONNECTION	<b>O</b>
	GREASING HOLES CLOGGED	REFER TO THE AUTHORIZED WORKSHOP	<b>A</b>
OIL IN TRANSMISSION CARTER	BROKEN MOTOR FLANGES/SEALS	REFER TO THE AUTHORIZED WORKSHOP	<b>A</b>
EXTERNAL OIL LOSSES	DULL FITTINGS	TIGHTEN UP DULL FITTINGS	<b>O</b>
	DAMAGED HOSES/PIPINGS	REPLACE HOSES/PIPINGS	<b>P</b>
	DAMAGED FITTINGS/CONNECTORS	REPLACE FITTINGS/CONNECTORS/SUBSTITUTED COUPLES	
	OIL LEAKS FROM THE HYDRAULIC MOTOR FLANGES/SEALS	REFER TO THE AUTHORIZED WORKSHOP	<b>R</b>
THE HYDRAULIC GRID DOES NOT OPEN	ROTATION PINS SCRATCHED	CLEAN AND GREASE THE PINS	<b>R</b>
	CYLINDER BLOCKING VALVE BLOCKED	CHECK THE VALVE	<b>P</b>
	CURRENT DOES NOT ARRIVE AT THE MAGNETS	CHECK THE ELECTRICAL SYSTEM	
	INCORRECT HYDRAULIC CONNECTIONS	CHECK THE CORRECT ELECTRICAL CONNECTION	<b>O</b>



## 16 Optional



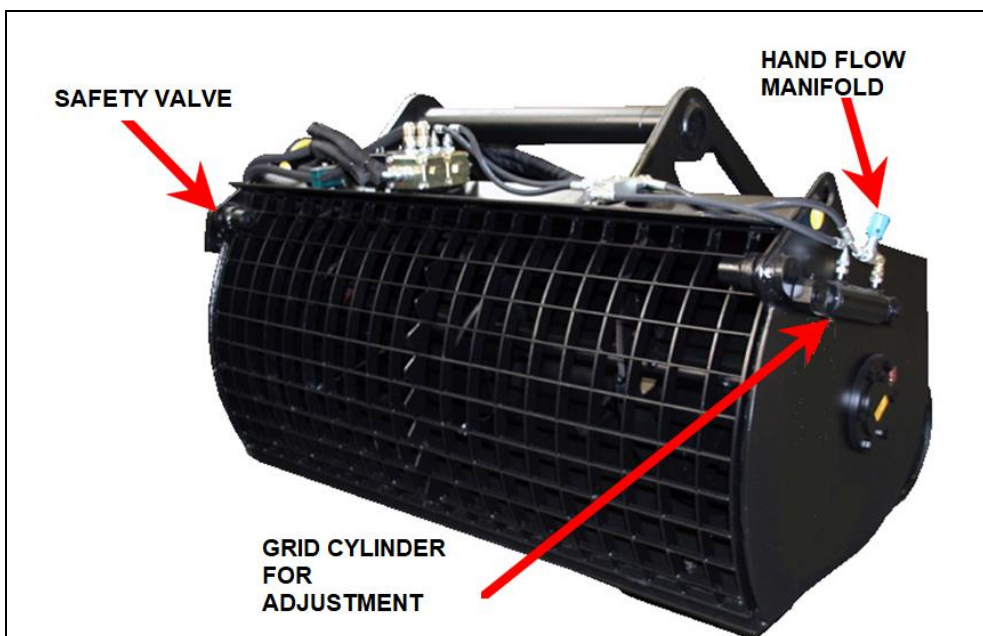
The mounting of accessories and the regulation and substitution of components constituting the accessory must occur with the engine stopped, parking brake on and the ignition key removed.



Resort to the use of appropriate handling and lifting equipment to avoid the risk of accidents resulting from the manual movement of loads.

### 16.1 Hydraulically opened grill

The bucket can be provided with a hydraulically opened grill to facilitate loading of material. For compliance with the existing legislation on occupational safety and accident prevention, this version is equipped with a safety valve that allows the activation of the HYDRAULIC MOTOR only when the grill is completely closed. Since the operation may not be immediately intuitive, it is recommended to carefully read the following instructions.





To properly use the bucket with hydraulic opening, it is necessary to be familiar with the electric selector installed in the cab of the operating machine, to be used together with the commands of the auxiliary hydraulic line of the operating machine.

In the case of **buckets with 2 hydraulic lines**, a 3-position selector is installed:

**- Electric selector in “1” position**

In this case, positioning the selector at “1” and acting on the appropriate hydraulic command, the flow opens and/or closes the unloading port.

**- Electric selector in “0” position**

With the selector in the “0” position (central position), the motor of the bucket is started by acting on the hydraulic command of the operating machine (if the grill is closed).

**- Electric selector in “2” position**

In this case, positioning the selector at “2” and acting on the appropriate hydraulic command, the flow reaches the jack indicated in the figure above and opens and/or closes the front grill.

In the case of **buckets with 4 hydraulic lines**, a 2-position selector with a “man on board” action is installed:

**- Selector pressed “on”**

By pressing the selector and acting on the appropriate hydraulic command of the op. m., the unloading port is opened and/or closed.

**- Selector released “off”**

In this case, with the selector released, acting on the appropriate hydraulic command of the op. m., the grill is opened and/or closed.



The electrical selector connects the coils of the electric valves present on the block to the voltage, allowing the passage of oil through the various valves, but the hydraulic drive is always commanded by the operating machine.



Do not remove the safety valve for any reason. In case of malfunction, immediately contact your dealer. MANUFACTURER is released from any responsibility resulting from inobservance of this provision.



## 17 Tables

### 17.1 Maximum torques of restraint screws

CLASS OF THE SCREWS		DIAMETER OF THE SCREWS - TORQUE (Nm) – COEFFICIENT OF FRICTION 0.10													
ISO	DIN	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30
8.8	8G	2.4	4.9	8	20	40	69	110	170	235	330	446	570	840	1150
10.9	10K	3.3	7	12	28	56	98	155	240	330	465	620	800	1200	1600
12.9	12K	4	8	14	34	67	116	185	285	395	560	750	960	1400	1950

### Assembly recommendations

- The screws must be lubricated with motor oil;
- In the case of attachment with two or more screws, the tightening will be progressive and alternate to obtain the required torque;
- Whenever flat washers are necessary, they must be steel with a minimum strength of 80 kg/mm<sup>2</sup>.

### 17.2 Torque fittings

FITTINGS	
"GAS" DIAMETER	TORQUE(Nm)
1/4"	35
3/8"	70
1/2"	100
3/4"	190
1"	300
1"1/4	330
1"1/2	400

FITTINGS	
DIAMETER "W" (inch)	TORQUE (Nm)
9/16"	30
3/4"	50
7/8"	70
1" 1/16	100
1" 3/16	130
1" 5/16	145
1" 5/8	190
1" 7/8	240

### 17.3 Torque hoses

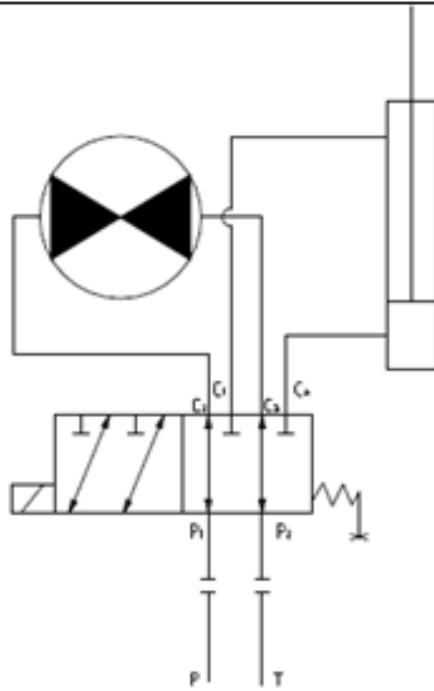
WITH ORFS FITTINGS	
DIAMETER "W" (inch)	TORQUE (Nm)
9/16"	25
11/16"	40
13/16"	55
1"	86
1" 3/16	125
1" 7/16	165
1" 11/16	200
2"	245

WITH JIC 37° FITTINGS	
DIAMETER "W" (inch)	TORQUE (Nm)
9/16"	30
3/4"	50
7/8"	70
1" 1/16	100
1" 3/16	130
1" 5/16	145
1" 5/8	190
1" 7/8	240

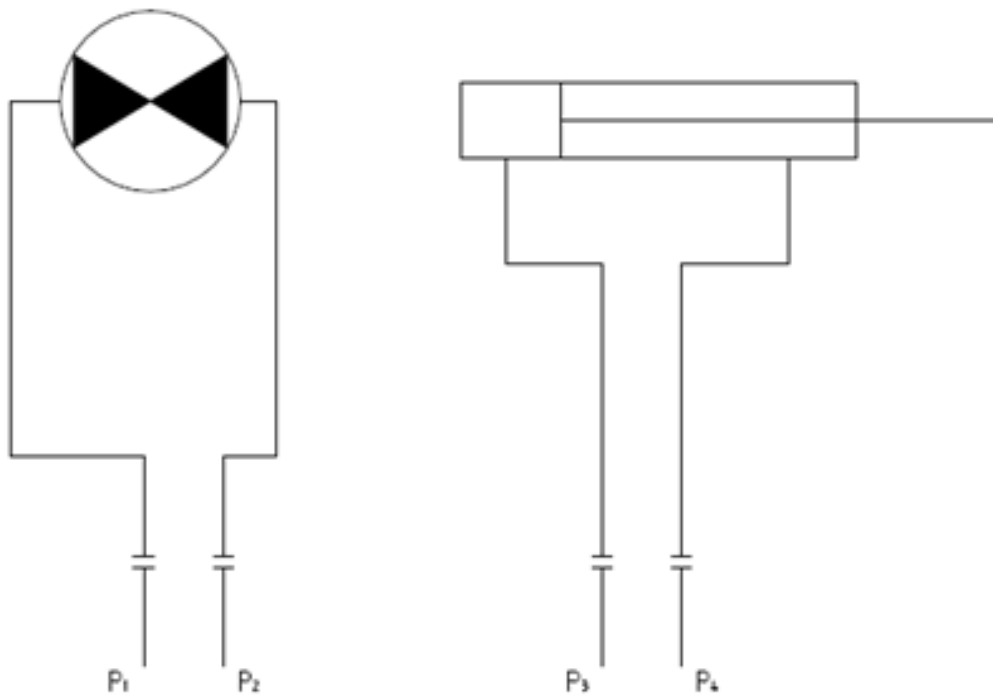
WITH GAS FITTINGS (BSPP)	
"GAS" DIAMETER	TORQUE (Nm)
1/4"	15
3/8"	28
1/2"	60
5/8"	70
3/4"	110
1"	140
1"1/4	190
1"1/2	245

## 18 COMMAND CIRCUITS DIAGRAMS

2 - LINE STANDARD BUCKET ELECTRICAL DIAGRAM

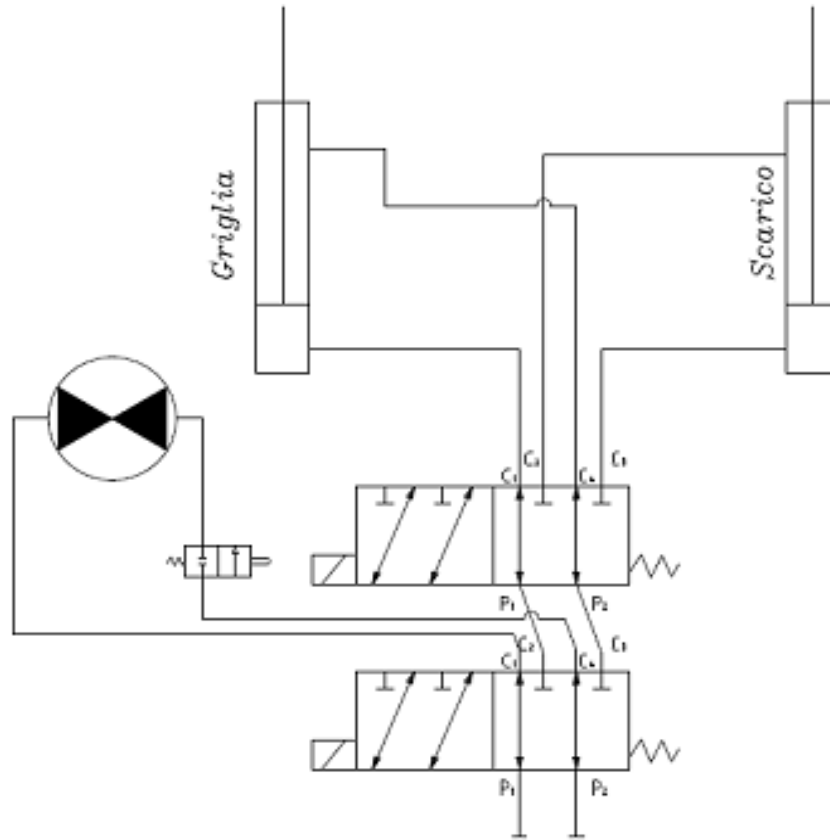


4 - LINE STANDARD BUCKET ELECTRICAL DIAGRAM

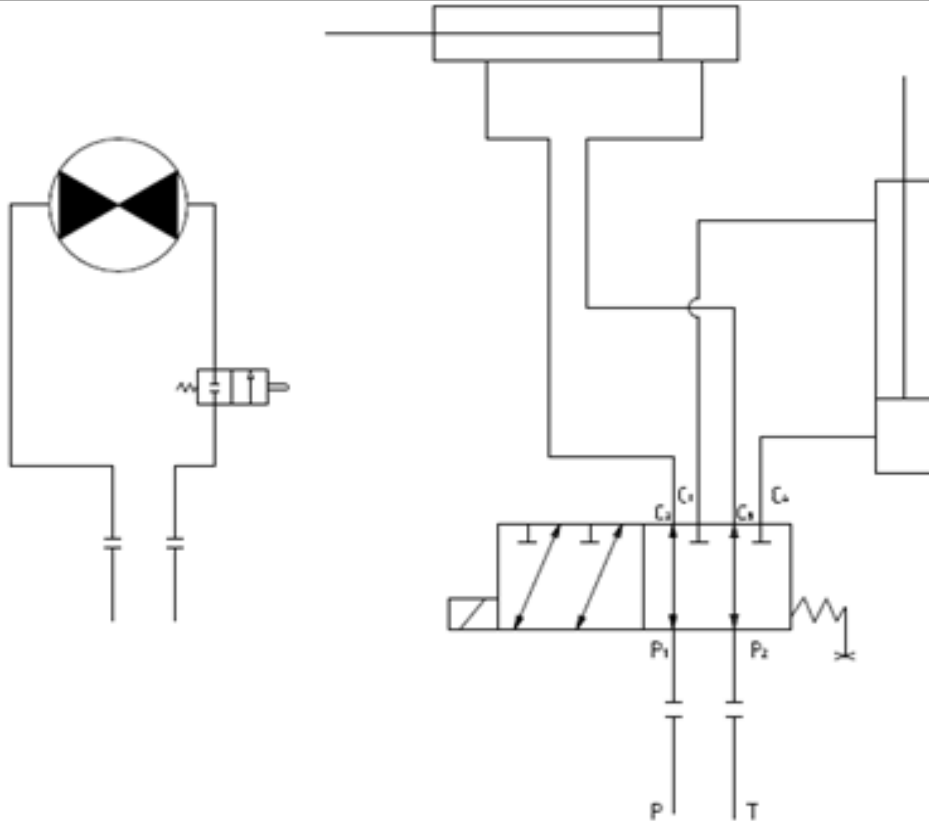




**2 - LINE WITH HYDRAULIC GRILL BUCKET ELECTRICAL DIAGRAM**

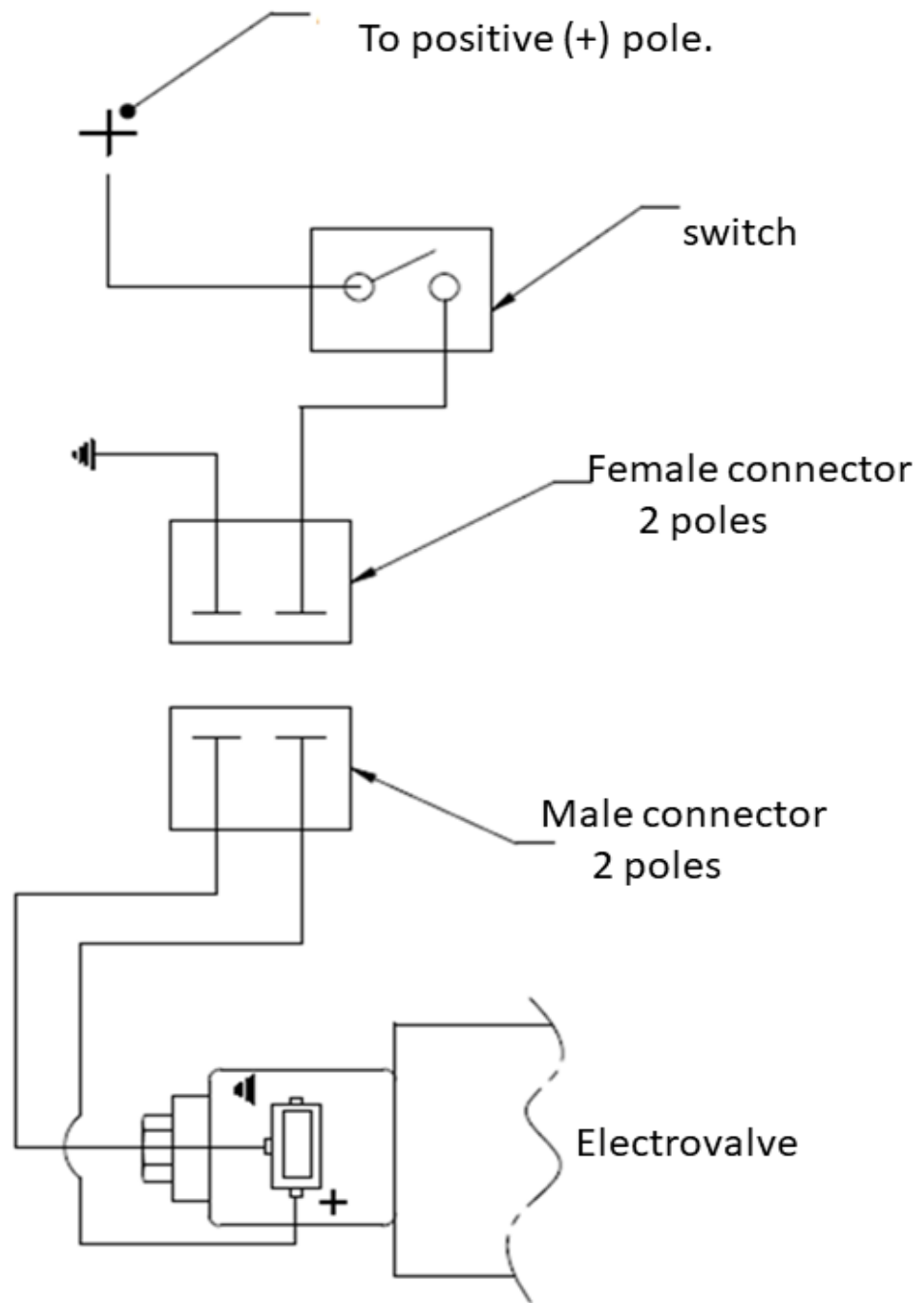


**4 - LINE WITH HYDRAULIC GRILL BUCKET ELECTRICAL DIAGRAM**



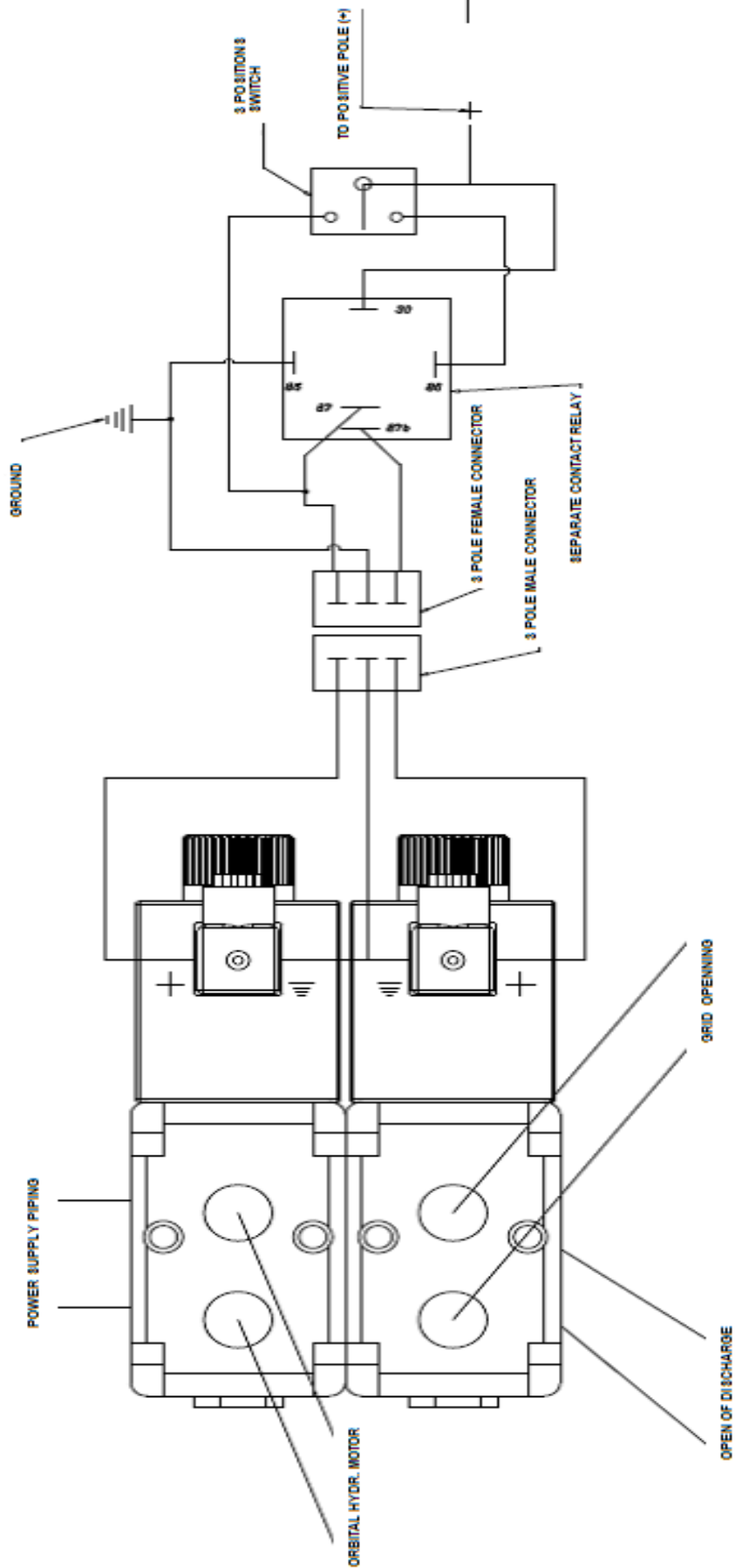


2/4 HYDRAULIC LINES STANDARD BUCKET ELECTRICAL DIAGRAM:



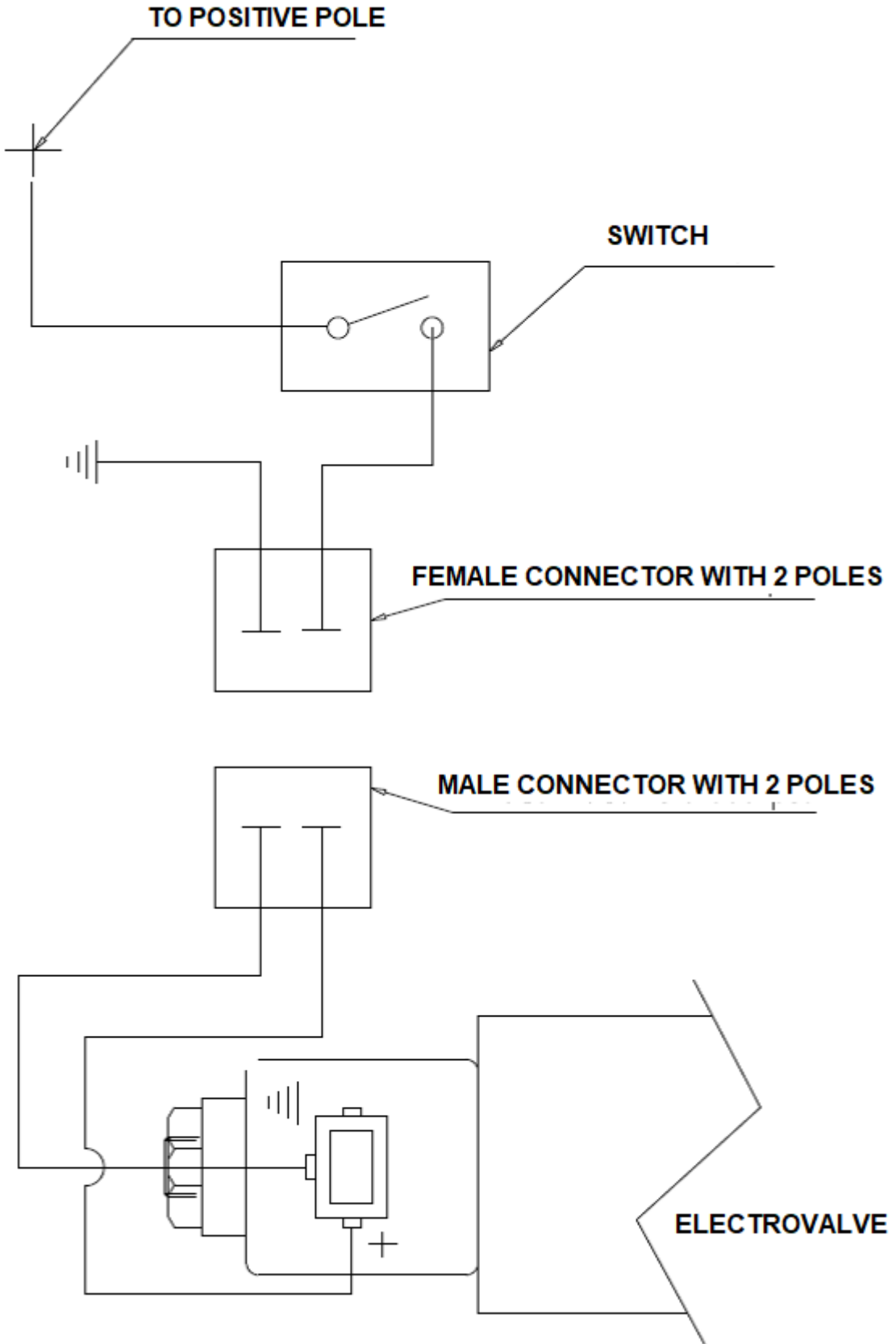


2-LINE WITH HYDRAULIC GRILL BUCKET ELECTRICAL DIAGRAM

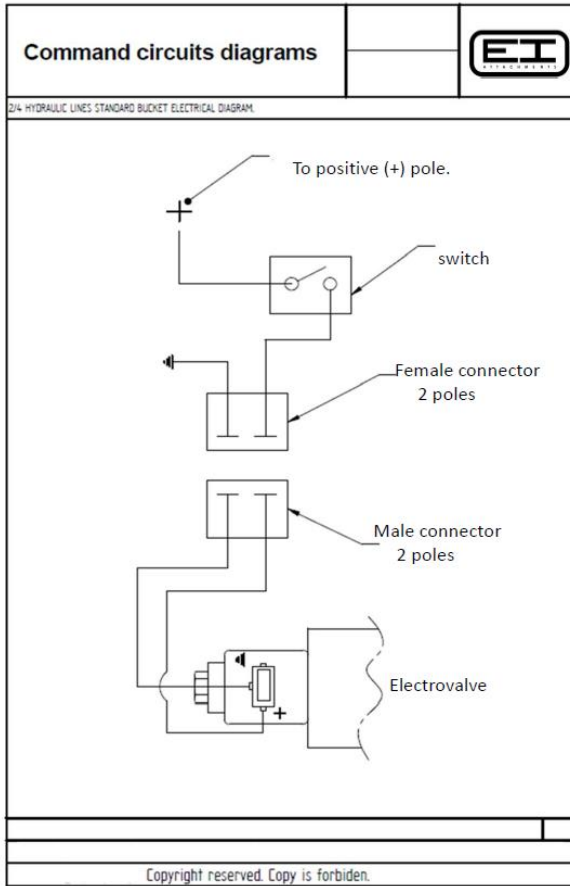




**4-LINE WITH HYDRAULIC GRILL BUCKET ELECTRICAL DIAGRAM**



**CABLE ASSEMBLING EXAMPLE FOR THE CONCRETE MIXER CONTROL:**



Included with mixer bucket:



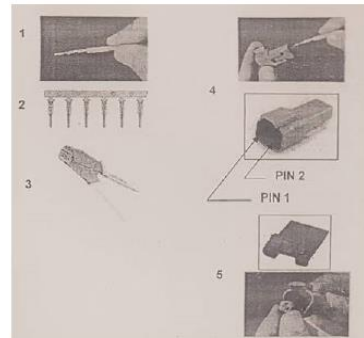
Example of wire connection- Assembling not included



**Mounting instructions for 2 pins fix male connector**

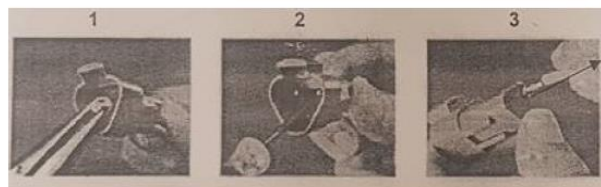


1. Strip the wire for a length of 4 mm.
2. Insert the wire into the male pin contact.
3. Crimp the wire using a tool or fastener, closing the flaps around the wire.
4. Insert the wire into the hole, according to numbers 1 & 2.
5. Insert the green part (lock) between the contact and the connector wall, blocking the retention clips.
6. Check the wire fitting is ok.

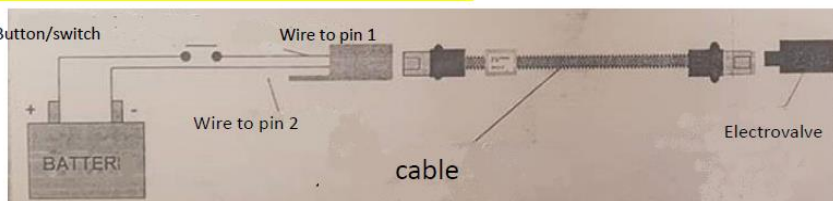


**DISMOUNTING THE CONTACTS:**

- 1.- Remove the green part with a hook.
- 2.- Loose the retentionclips with a flat screw driver.
- 3.- Remove the wire out of the contact.



**Electrical schema for connection to electrovalve:**





# SPARE PARTS MANUAL CONCRETE MIXER BUCKET

**MODEL:**

**SERIAL N:**





**IMPORTANT :**

**TO ASK FOR SPARE PARTS, IT IS ALWAYS NECESSARY TO SPECIFY THE FOLLOWING INFORMATION:**

- 1) CONCRETE MIXER BUCKET MODEL.**
- 2) SERIAL NUMBER.**
- 3) MANUFACTURING DATE FROM THE NAMEPLATE.**

**SPARE PARTS CONTENTS:**

- 1.- AXLE SYSTEM.
- 2.- CHASSIS AND PROTECTION GRID.
- 3.- DISCHARGE DOOR OPENING CYLINDER SYSTEM.
- 4.- DISCHARGE OPENING CYLINDER.
- 5.- TRANSMISSION SYSTEM.
- 6.- HYDRAULIC HOSES INSTALLATION.
- 7.- OUTLET TUBE FOR THE CONCRETE UNLOADING.
- 8.- ELECTRIC CONNECTOR/PLUG.

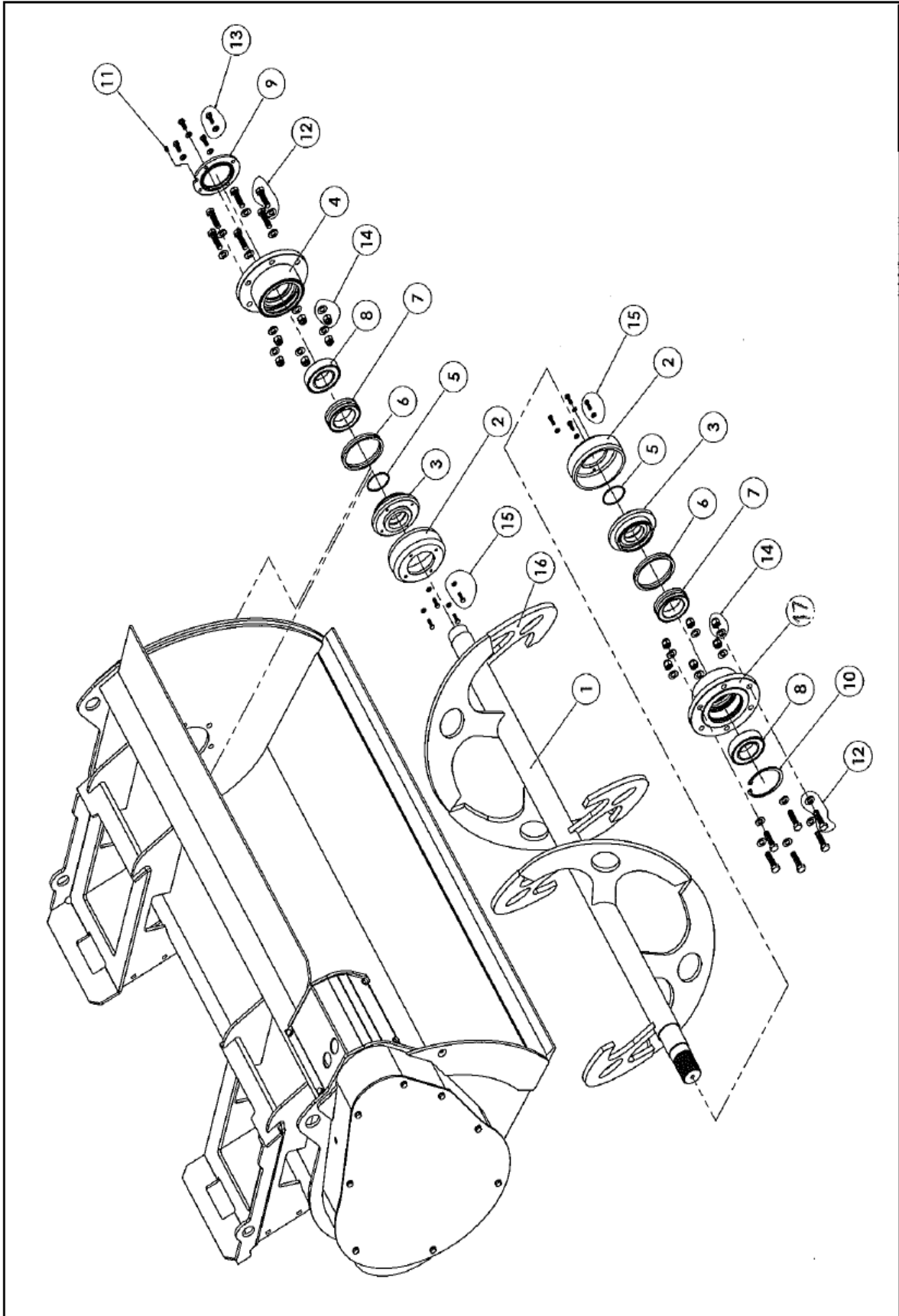


**1.- AXLE SYSTEM:**

#	DESCRIPTION	QTTY
1	BOLT	1
2	COVER HOUSING UNIV.	2
3	SEALING COVER UNIV.	2
4	HOUSING FOUND.UNIV.	1
5	OR 158 (O-RING)	2
6	TAPE 6X6 L.0,75 MTS	2
7	SEAL 5470	2
8	BEARING 2210 2RS	2
9	COVER	1
10	SEGGER RING I90	1
11	NIPPLE M6	1
12	SCREW M12X45E	12
12	WASHER DIAM. 12	12
13	SCREW M8 X 25E	4
13	DOUBLE SERRATED WASHER DIAM. 8	4
14	WASHER DIAM. 12	12
14	SELF-LOCKING NUT M12	12
15	DOUBLE SERRATED WASHER DIAM. 6	8
15	SCREW M6X16E	8
16	MIXING HELIX	8
17	HOUSING FOUND. MOTOR SIDE	1



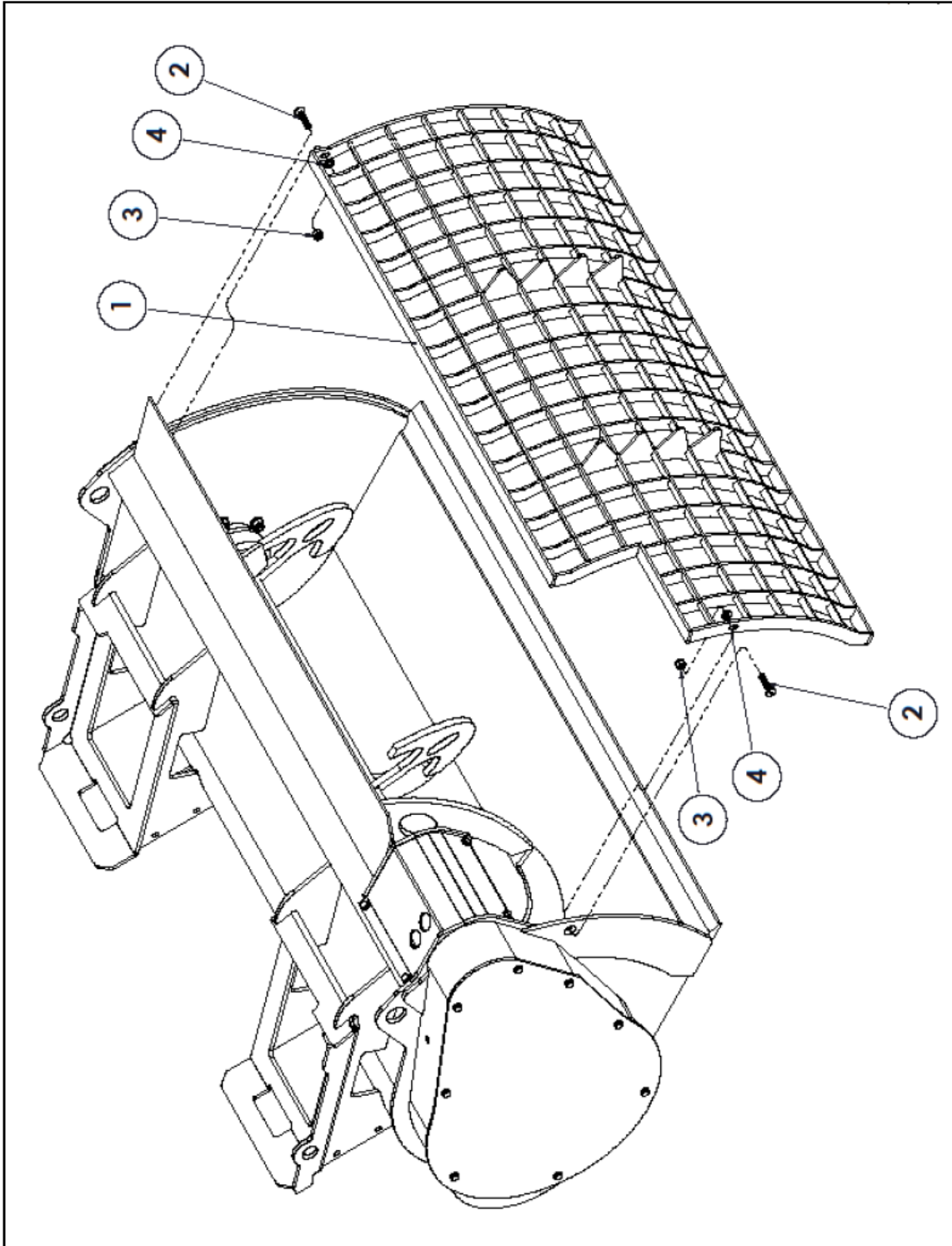
**1.- AXLE SYSTEM:**





## 2.- CHASSIS AND PROTECTION GRID:

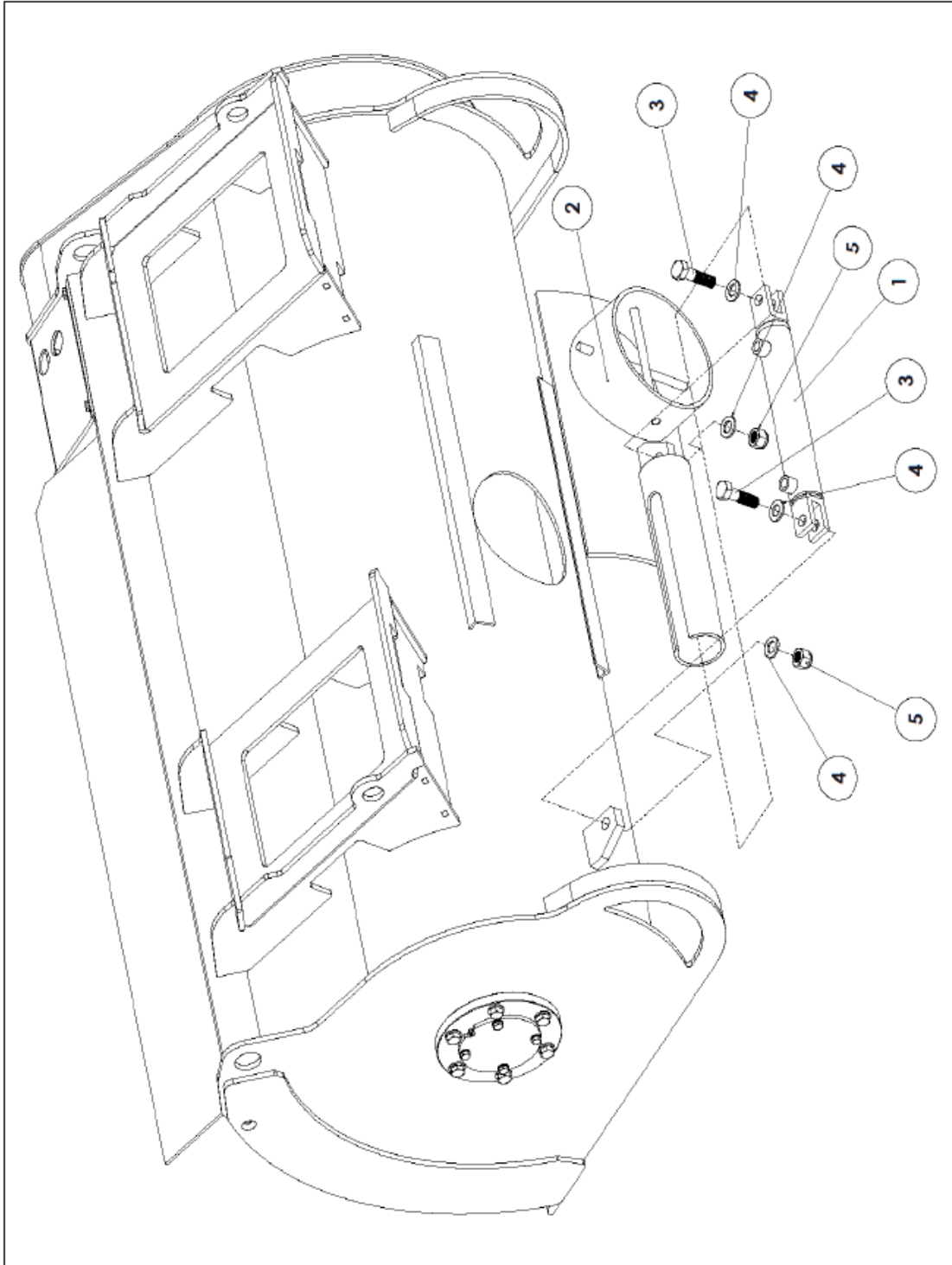
#	DESCRIPTION	QTTY
1	GRID	1
2	SCREW M8 X 30E	2
3	SELF-LOCKING NUT M8	2
4	WASHER DIAM. 8	2





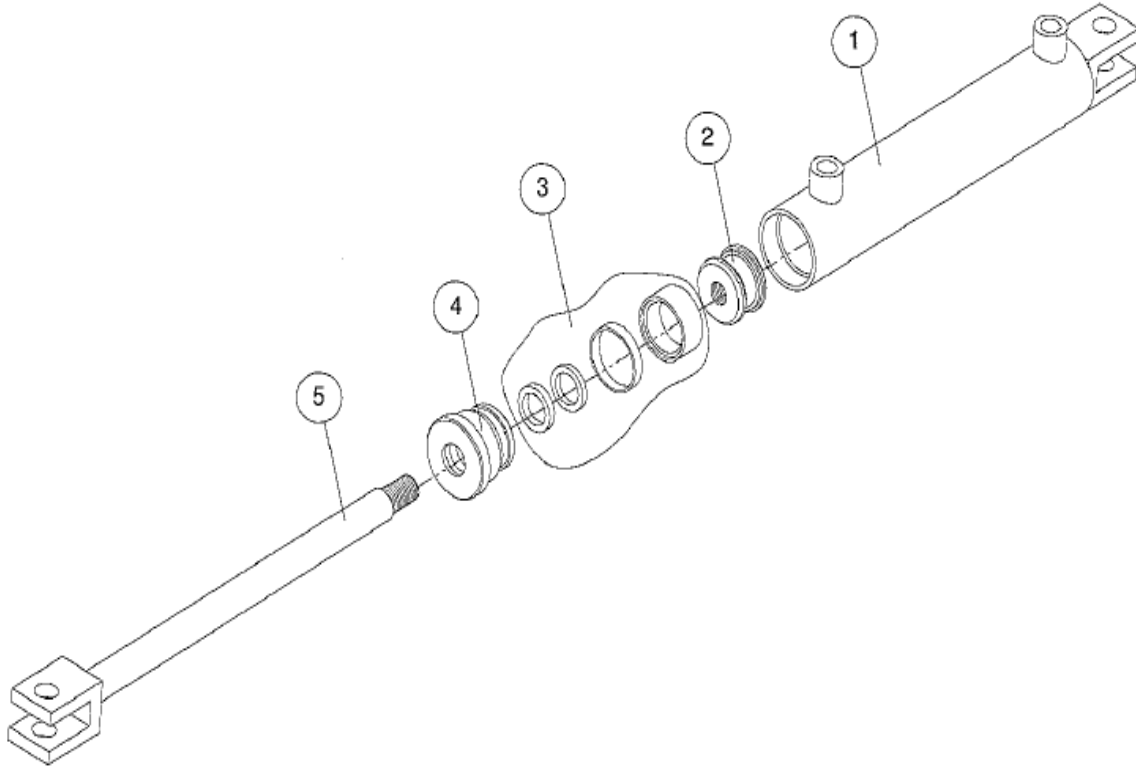
### **3.- DISCHARGE DOOR OPENING CYLINDER SYSTEM:**

#	DESCRIPTION	QTTY
1	DOOR CYLINDER - 0000,114	1
2	DISCHARGE DOOR ASSY	1
3	SCREW M16 X 55E	2
4	WASHER DIAM. 16	4
5	SELF-LOCKING NUT D.16	2





**4.- DISCHARGE OPENING CYLINDER:**



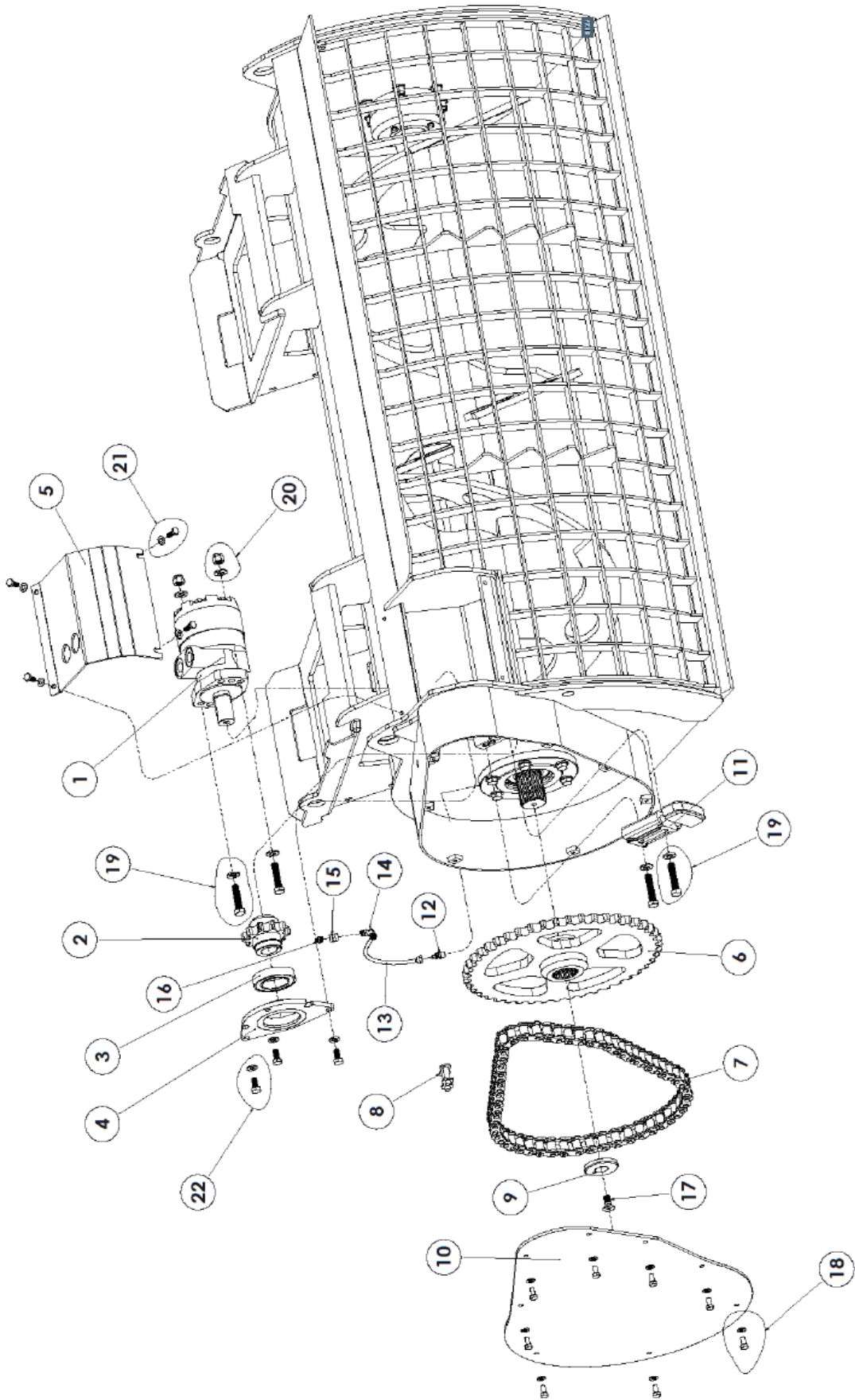
#	DESCRIPTION	QTTY
1	SLEEVE	1
2	END OF PISTON	1
3	SEALS KIT	1
4	GUIDE TAP	1
5	ROD	1



**5.- TRANSMISSION SYSTEM:**

#	DESCRIPTION	QTTY
1	HYDRAULIC MOTOR	1
2	MOTOR SPROCKET- 0001,058	1
3	BEARING 6010 - 0001,115	1
4	BEARING HOLDER RING - 0001,076	1
4	BEARING SUPPORT	1
5	MOTOR BOX COVER	1
6	GEAR SPROCKET	1
7	1" CHAIN	1
8	1" CHAIN JOINT	1
9	GEAR LOCK WASHER	1
10	CARTER COVER	1
11	CHAIN TENSIONER - 0001,143	1
12	STRAIGHT FITTING	1
13	RILSAN PIPE	1
14	ELBOW 1/8	1
15	FITTING 1/8	1
16	NIPPLE 1/8	1
17	SCREW/BOLT M8X24E	1
18	SCREW/BOLT M12X35E	8
18	WASHER DIAM. 8	8
19	SCREW/BOLT M12X45E	2
19	RIBBET WASHER DIAM. 12	2
20	SELF-LOCKING NUT M12	2
20	WASHER DIAM. 12	2
21	SCREW/BOLT M8X25E	4
21	WASHER DIAM. 8	4
22	SCREW/BOLT	3
22	WASHER	3

**5.- TRANSMISSION SYSTEM:**

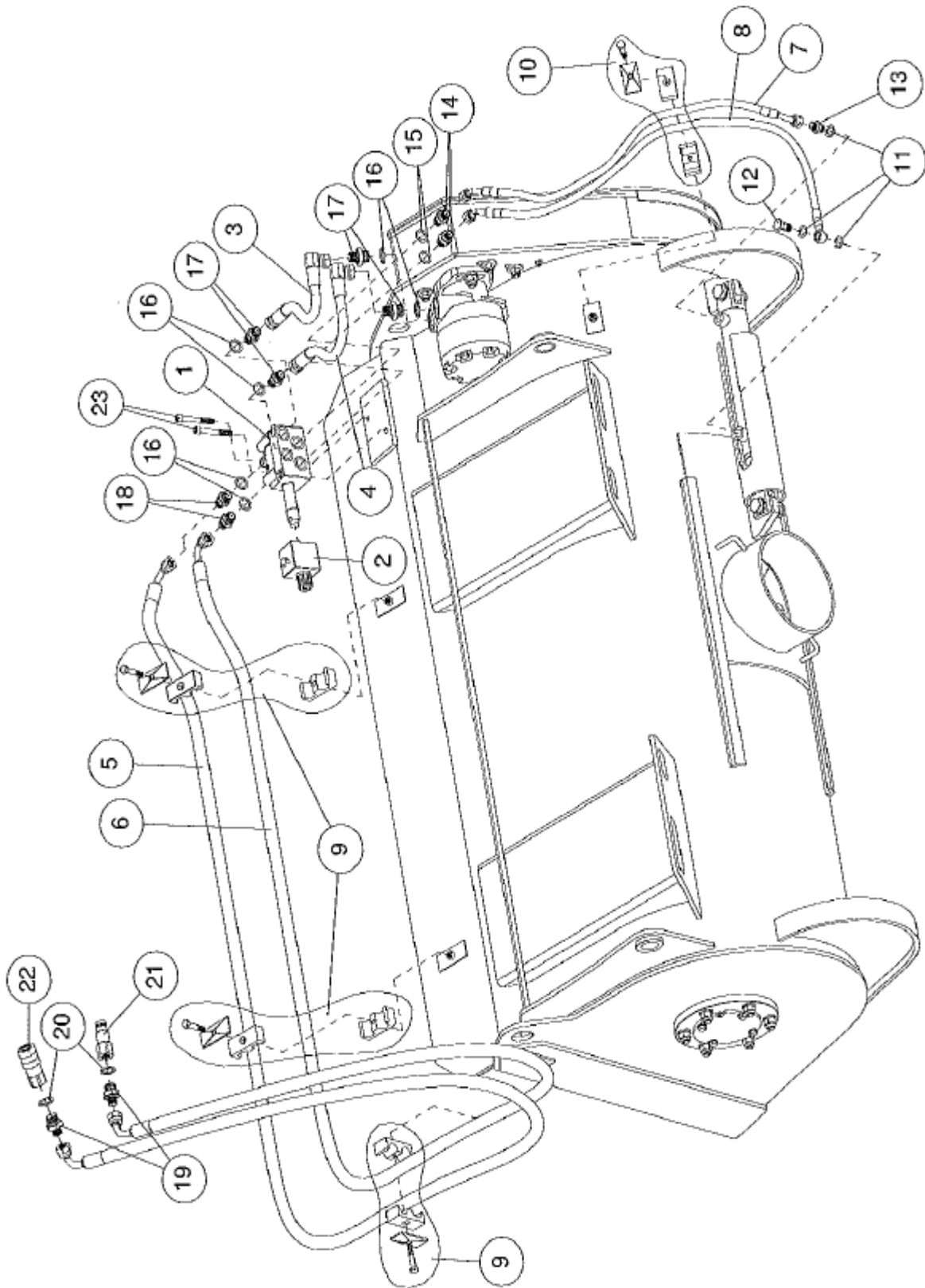




**6.- HYDRAULIC HOSES INSTALLATION:**

#	DESCRIPTION	QTTY
1	ELECTROVALVE 3/8 - 1/2 VS 161	1
2	ELECTROVALVE COIL	1
3	MOTOR HOSE 3/8 R2	1
4	MOTOR HOSE 3/8 R2	1
5	FLOW INCOMMING HOSE 1/2 R2	1
6	FLOW INCOMMING HOSE 1/2 R2	1
7	HOSE 1/4 R1	1
8	HOSE 1/4 R1	1
9	HOSE DOUBLE BRIDLE 1/2	3
10	HOSE DOUBLE BRIDLE 1/4	1
11	BOUNDED SEAL 1/4	3
12	SINGLE HOLLOW BOLT 1/4 BSPP	1
13	FITTING M-M 1/4 TO 1/4 BSPP	1
14	FITTING M-M 1/4 TO 3/8 BSP	2
15	BOUNDED SEAL 3/8	2
16	BOUNDED SEAL 1/2	6
17	REDUCER FITTING M-M 1/2 TO 3/8 BSPP	4
18	FITTING M-M 1/2 TO 1/2 BSPP	2
19	REDUCER FITTING M-M 1/2 TO 3/4 BSPP	2
20	BOUNDED SEAL 3/4	2
21	MALE HYDR. QUICK CONNECTOR 3/4	1
22	FEMALE HYDR. QUICK CONNECTOR 3/4	1
23	HALF THREAD SCREW M08X070	2

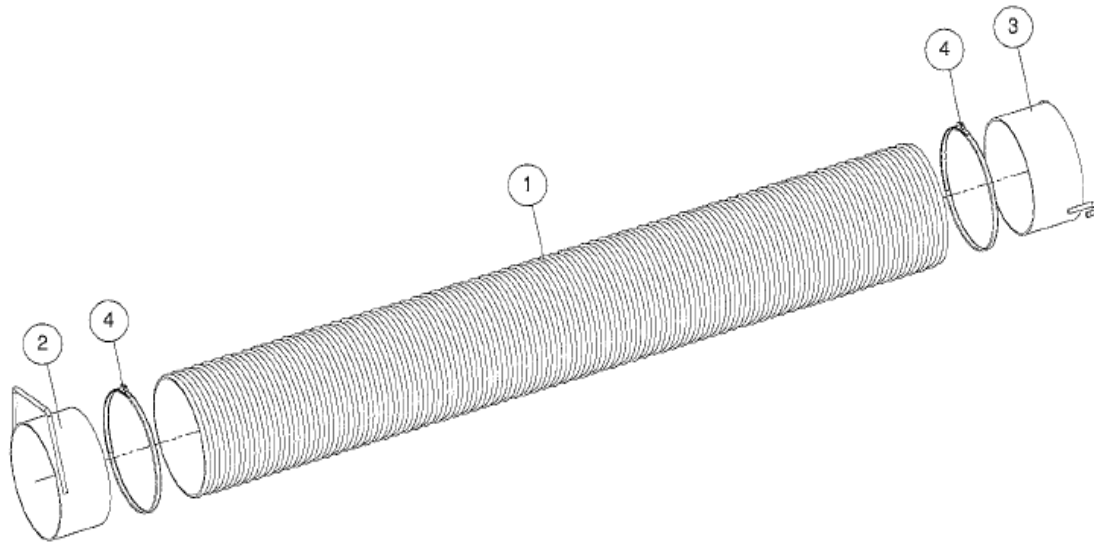
**6.- HYDRAULIC HOSES INSTALLATION:**





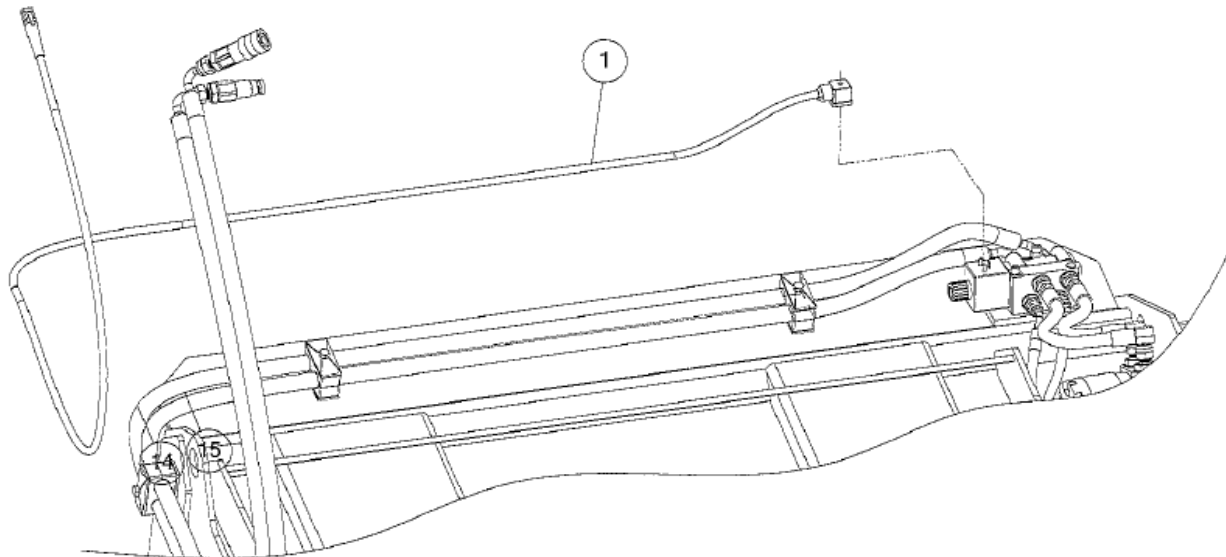


**7.- OUTLET TUBE FOR THE CONCRETE UNLOADING:**



#	DESCRIPTION	QTTY
1	150 mm DIAMETER PIPE	1
2	TERMINAL WITH HANDLE	1
3	TERMINAL FOR CONNECTING	1
4	VELOX WRAPPINGS	2

**8.- ELECTRIC CONNECTOR/PLUG:**



#	DESCRIPTION	QTTY
1	CABLE WITH PLUG	1



