



MENEGOTTI CONCRETE MIXERS LINE

WARRANTY

A - Menegotti guarantees this product against manufacturing or material defects in the 400 Liter MAX line for a period of 18 months from purchase date proven through presentation of authentic receipt made out to the first end consumer.

B - This warranty includes the changing of parts and repairs resulting from manufacturing defects duly recognized by the factory or Authorized Technical Assistant. Should this product suffer damage due to accidents, act of nature, applications other than those specified, connection to unsuitable power supply or is submitted to severe oscillations in energy or, in the case of being opened by a person or workshop that is not authorized by Menegotti, this warranty becomes null and void.

C - Freight expenses for taking the product to the technical assistant or factory will be the responsibility of the consumer. Menegotti offers an ample network of Technical Assistants through the national territory.

D - If the equipment is acquired with an electric motor the warranty covers internal motor defects due to its manufacture. Defects not covered by the warranty are: overload due to lack of or excessive phase, use of voltage other than that specified, cracked or crushed casing due to negligence during transporting/or storage, coupling or energizing of motor not within that specified and general defects due to in appropriate handling or incorrect installation.



Important Tips

- The Concrete Mixer must be cleaned after use;
- Place the machine on a firm and flat surface;
- Install the switch and motor in accordance with the electrical current;
- Periodically check the state of the motor belt;
- Materials must be placed inside the mixer when it is rotating and as quickly as possible;
- Unloading must also be performed when the mixer is rotating.

Attention

Earth the electric motor of this equipment.
Be aware of the risks and responsibility that must be assumed if all the precautions to operate any equipment powered by electricity

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We reserve the right to perform any alterations to the product without prior notice.

24050800 R2 MARCH/14

CONCRETE MIXER 400 LITERS MAX



 **Menegotti**



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Product Warranty

The warranty is nontransferable under the conditions and within the prescribed period and effective from the date of purchase of the equipment, proven by presentation of the bill of sale to the first consumer. At the time of delivery of the equipment the customer should receive information and technical guidance in relation to this equipment according to the contents of this manual.

Not covered by this warranty are defects arising from improper treatment, carelessness, negligence, imprudence or inexperience, as well as any repair or alteration of any part and / or component of equipment. Moreover, any assembly of parts through technical intervention other than by the Factory itself or an authorized Technical Assistant, any application other than what is specified, mechanical or electrical overload and phase failure, use in an environment for which it was not designed, incorrect voltages and frequencies, incorrect lubrication, damage caused by accidents of any kind, such as floods, storms, fires, landslides or from transporting.

The removal or alteration of any serial numbers, originally placed on the product, make the guarantee null and void, where the bill of sale and the Certificate Guarantee the equipment in question must be presented.

The assumed warranty with this is limited to repair, replacement of parts or assembly of set pieces in which examination by Menegotti Authorized Technical Assistant is previously authorized by Factory, verify the existence of a manufacturing defect. Such repair or replacement will be made by the authorized Technical Assistant, with the buyer assuming the risks or costs of transportation to and from the Technical Assistant, with no cost to buyer for labor and parts replaced under this warranty.

This replaces any other warranty, explicit or implicit as well as any obligation or liability on the part of our company in relation to the above product.

MENEGOTTI Post Sales and Technical Assistance Department.

Term of Warranty

Menegotti guarantees this product against manufacturing or materials defects for a period of 18 months from the date of purchase verified by presenting the invoice to the first consumer. Not included in the warranty of this equipment are components damaged through wear and tear such as: bearings, pulleys, among others.

This warranty covers the repair and replacement of parts against factory defects duly verified by the factory or Authorized Technical Assistant. The warranty becomes null and void if this product suffers damage caused by accidents, acts of nature, application other than that for which is specified, connected to improper power supply or subjected to unusual power fluctuations or if opened by person or workshop not authorized by Menegotti.

The costs of shipping the product to the factory or technical assistant, are the responsibility of the consumer. Menegotti has an extensive network of Technical Assistants throughout the national territory.

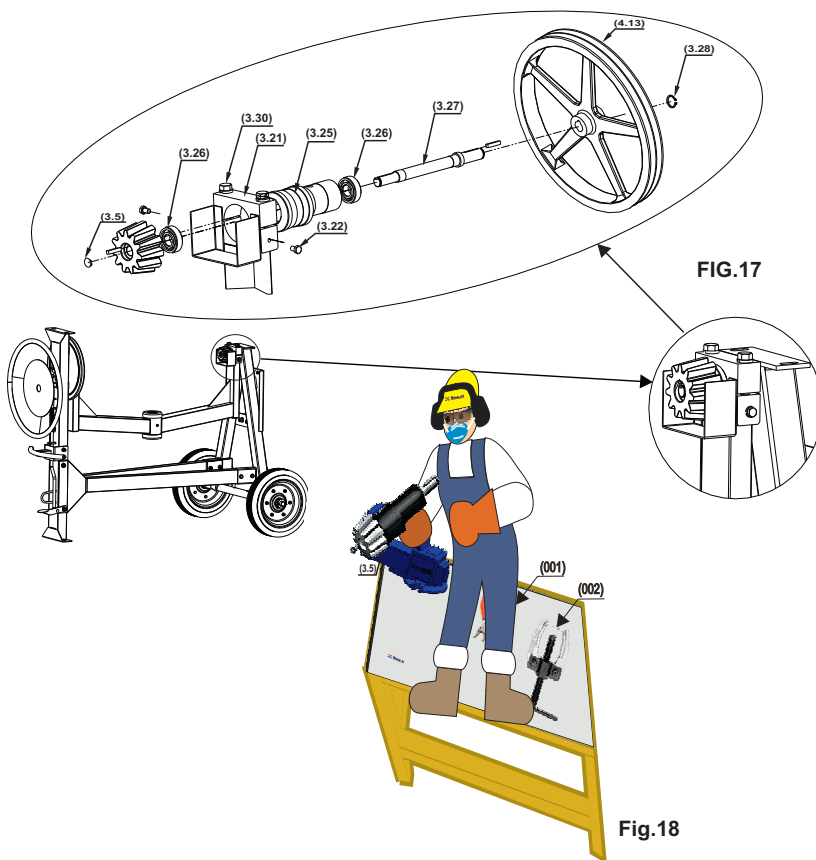
The equipment comes with electric motor, and the warranty covers internal motor defects arising from its manufacture. Defects not covered under this warranty are: overload or lack of phase, use of voltage other than that specified, broken or dented housing due to carelessness in shipping / or storage, motor coupling or energizing other than that specified and general defects misuse and / or incorrect installation.

In full agreement of this term,

Client:	
Model:	Serial Numbers:
City:	Date:

Client

Menegotti Authorized Service


FIG.17
Fig.18

6. OPTIONAL ITEMS

31260078 – Auxiliary Wheel Kit
D 3115074



62140105 – Silicone 50 gm



1. INFORMATION

1.1 Factory Identification

Menegotti Industrias Metalurgicas Ltda is a member of Menegotti Group, with headquarters in Jaraguá do Sul - SC. Menegotti Construction Machinery is leader in the production of concrete mixers, tools and equipment for civil construction.

1.2 Machine Identification

The Menegotti concrete mixers are designed to perform the most demanding work. The transmission mechanisms enable easy operation demanding the least amount of human effort. The triple effect mixing blades increase work efficiency.

Note: For the purpose of constantly improving its equipment, Menegotti reserves the right to alter any of its products without prior notice.

1.3 Using the Manual

The manual must be read from cover to cover before starting any operation. The manual contains useful information about the product, manufacturer, safety, spare parts, maintenance and conservation. For convenience, keep this manual in a handy location so it may be quickly referred to whenever necessary.

1.4 Security:



- Before using this equipment, read this manual carefully and follow the manufacturer's instructions in order to reduce the risk of accident when in operation;
- It is expressly prohibited to remove or alter any safety device on the machine;
- Use the equipment according to the instructions in this manual;



- In the case of damaged or missing parts, contact Menegotti immediately by telephoning +55(47) 3275-8058 for a replacement. With the machine switched off, conduct a daily inspection of the machine parts. In case of problems, immediately contact Menegotti;



- Limit an area exclusively for using the equipment, always keeping the place clean and free of obstacles in the path and with good lighting;
- The operator must be trained or qualified to use this equipment;



- Do not use loose clothing that could get caught in the machine;
- Always wear gloves, protective glasses and ear plugs;
- The Motors must be installed by qualified professionals;
- Perform maintenance as recommended in this manual with qualified people and within the period stated;



- Inspect the entire electric extension, mainly pertaining to cuts, frayed cable and broken connections. Never use extensions that are not in good condition;
- Never use wet extensions or in wet environments (e.g. water wells);
- When cleaning the equipment, never throw water over the Motor;
- Whenever performing maintenance on this equipment, disconnect the Power cable from the source;



- Avoid contact with hot surfaces;
- Before performing any activity or maintenance, let the Motor cool down;



- Avoid contact with rotating parts.

1.5 Technical Specifications

Technical Data	Max
Total Volume	400 l
Mixing final yield	270 l
Number of cycles / hour	15 cycles
Hourly production	4,65 m ³
Drum rotation	30 rpm (60Hz) / 28 rpm (50Hz)
Electric motor (IP21)	Single phase 2 HP (110/220V) Three phase 2 HP (220/380V)
Combustion Motor	5,5HP (gasoline) Honda or Branco 5HP (diesel) Branco or Toyama
Belt (2)	In "V" A-48 (with electric motor)
Weight (without Motor)	215 kg
Dimensions (L x W x H)	1865X1050X1500mm

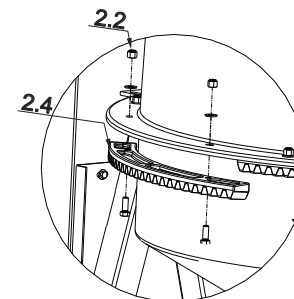


5.3 Replacing Segmented Rack Gear (Fig.15)

To replace the segmented rack gear (2.4), remove the nut (2.2) using a 9/16" combination wrench.

Note: Removal of the drum is not necessary when replacing segmented rack gear.

Fig.15

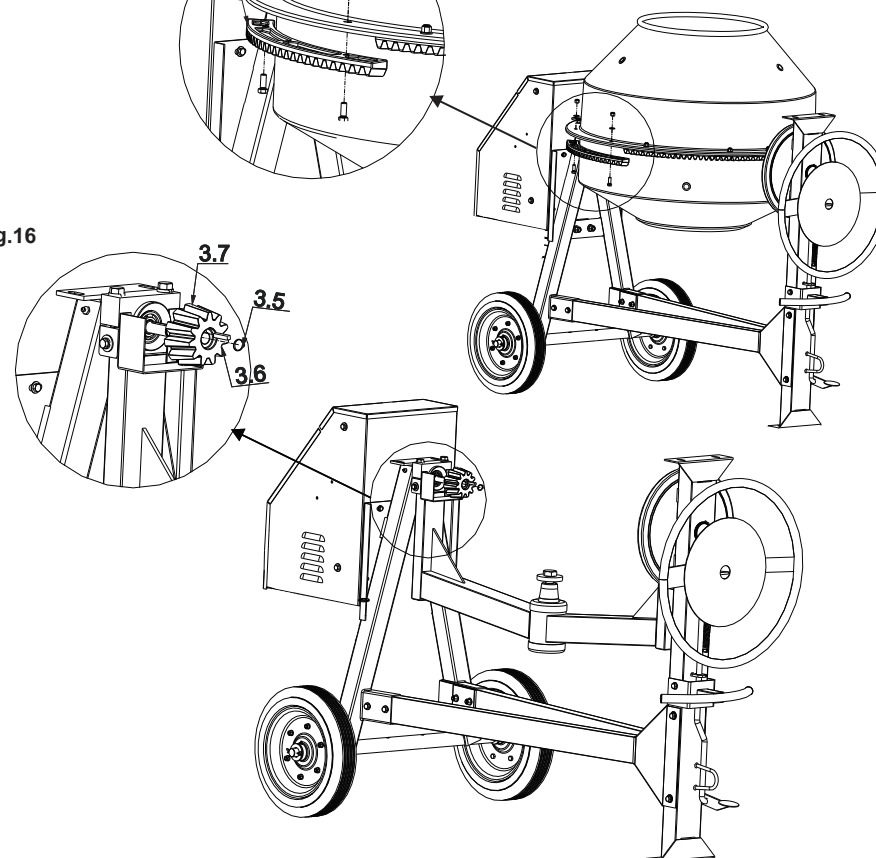


5.4 Replacing Pinion (Fig.16)

1st Remove the drum to access the pinion (3.7), remove the circlip (3.5) and taper key (3.6) then remove the pinion with a pinion puller.

Note: The electrical motor box does not need to be removed.

Fig.16



5.5 Replacing Bearings and Pinion Shaft (Fig.17 and 18)

1st To replace bearing and shaft (Fig. 17 - 3.26 and 3.27), the drum and electrical box need to be removed.

2nd Remove the circlip (3.5) (3.28) using needle nose pliers (001), then remove the drive pulley (4.13) with 2 prong bearing puller (002). To remove, position the tip of the puller in the shaft.

3rd Note: The best way of disassembly is to secure the steel yoke eccentric bushing in a bench vice.

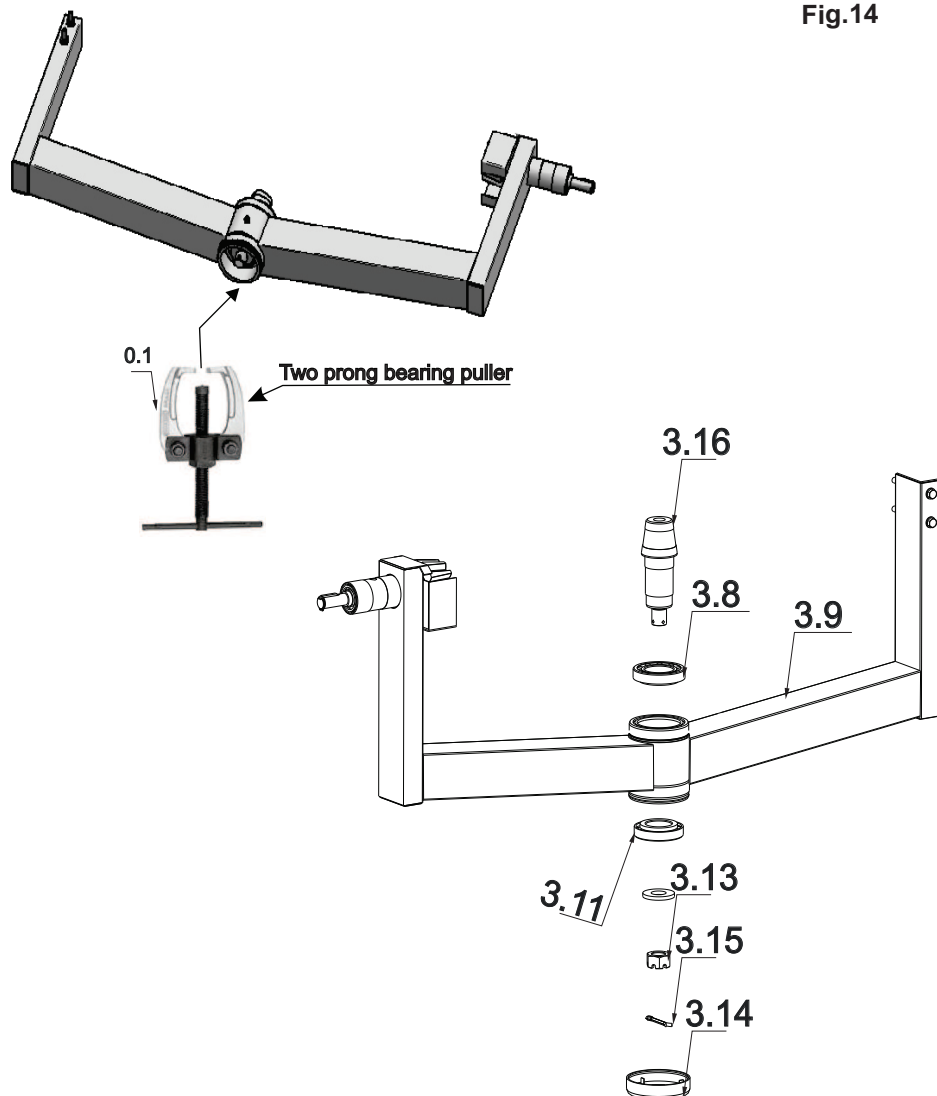
4th To remove eccentric bushing (3.25) (Fig.17), remove the two bolts (3.30) and (3.22). Finally remove the split bearing (3.21).



5.2 Replacing Conical Bearings and Central Shaft (Fig.14)

- 1st Remove upper cover (3.14) of steel yoke (3.9);
- 2nd Remove locking pin (3.15) and unbolt castle nut (3.13);
- 3rd Use two prong bearing puller (0.1), position puller prong in central shaft (3.16) to pull out conical bearings (3.8 and 3.11);
- 4th It is recommended to lubricate all bearings for replacement;
- 5th Replace the damaged part with the new one and reassemble the machine.

Fig.14



1.6 Description of Machine and its Main Parts



Nº	Description
1	Drum
2	Motor Box
3	Wheel Shaft Assembly
4	Small Column
5	Steel Yoke
6	Chassis
7	Large Column
8	Hand Wheel
9	Pedal

The Menegotti 400l concrete mixer was designed for heavy duty work in civil construction. Its drum has a mixing capacity for up to 310 liters. A Motor (electric/combustion) is responsible for drum rotation and is activated by a driver/driven pulley system with "V" belts. The unloading system is manual.

1.7 Work and Operating Conditions

- Menegotti concrete mixers can be used indoor and outdoor environments, with the exception of combustion engines;
- When the mixer is being filled with a spade, the operator must never introduce the spade inside the drum;
- The introduction of any object into the drum when it is rotating can cause serious accidents;
- Any improper use or use outside the environment for which this equipment was designed, can pose a threat to the physical integrity of the operator and those around him;
- When using this equipment follow the manufacturer's instructions in order to reduce the risk of accidents while in operation.
- Carefully read this instruction manual;
- Use the equipment according to the instructions in this manual;

- The operator must be trained or qualified to use this equipment;
- Limit an area exclusively for using the equipment, always keeping the place clean and free of obstacles in the path and with good lighting;
- Whenever performing maintenance on this equipment, disconnect the cable from the power supply.

1.8 Noise Level during Operation

Since the noise level during the mixing operation, with the addition of crushed stone and gravel in the drum, can vary from 85 dBA to up to 100 dBA, the use of ear protection is recommended for long operations.

1.9 IPE Individual Protection Equipment

The individual protection equipment (IPE) must be used by the operator. For example: protective glasses, gloves, ear protection, mask and special shoes. Wear appropriate clothes for operating the equipment.

Never let skin come into contact with concrete.

1.10 Equipment supplied with Electric Motor

Turning on the Motor

Before switch on your concret mixer, check if the supply voltage corresponds to the voltage indicated on the identity plate of the electric motor. Switching on the motor when connected to different voltage from the voltage indicated on the identity plate of the electric motor will result in damage to the motor.

ATTENTION

⚠ Accepted voltage variation must not exceed variations above or below 10%, otherwise running failures may occur or even burning of the motor.

Earthing the machine

- **Correct earthing of the concrete mixer is vitally important in reducing the risk of electrical shocks. Thus, before switching on your concrete mixer, make sure that the socket has an earth pin and that this is correctly installed. If your socket is not earthed, arrange for an earth to be installed before using the concrete mixer.**

- **Just like the sockets, always use electrical extensions with an earth pin and earth wire.**

- **Check if the earth wire (Fig. A.2) is connected to the electric motor earth point (Fig. B) and if there is an earth wire (Fig. A.1) connected to the machine earth point (Fig. C), as shown in the following example:**

- 1- Earth wire connected to Machine Earth Point
2 - Earth wire connected to Motor Earth Point

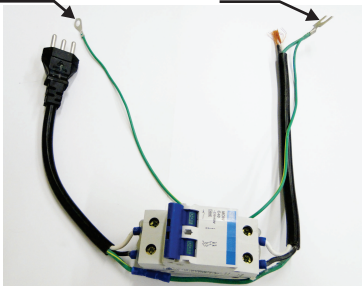


Figure A – Single phase starting switch with earth



Figure B – Earth point for electric motor

POS.	Description	QTY.	CODE	DRAW. NO
4.1	Motor box Rental/Max 400L	01	22130006	2.108.049
4.2	Flange Hex Screw Fully Threaded M6 x 16	04	21012986	-
4.3	Self-locking hex nut M6 galvanized	04	21021208	-
4.4	Hex bolt full thread BSW 1/2"X1.1/4" galvanized	02	21010410	-
4.5	Flat Washer Steel 1/2"	04	21030250	-
4.6	Hex Nut BSW - 1/2"	02	21020207	-
4.7	Lock Washer Steel 1/2"	02	21030164	-
4.8	Motor base	01	32050025	3.122.003
4.9	Single/three phase motor	01	***	-
4.10	Driver pulley	01	***	-
4.11	V-belt	02	***	-
4.12	Driven pulley, hole 20mm for 400 liters (external diameter of 340mm)	01	29110159	3.108.034
4.13	Hex head bolt 5/16"UNCx1.1/4" galvanized	04	21010229	-
4.14	Hex Nut 5/16" UNC	04	21021052	-
4.15	Lock Washer 5/16"	04	21030112	-
4.16	Flat Washer Steel 5/16"	08	21030252	-

*** - CONTACT US

5. MAINTENANCE

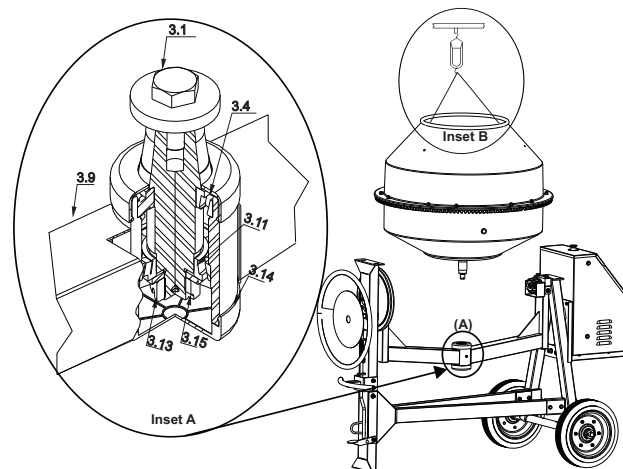
ATTENTION:

- ⚠ - Whenever there is need to improve maintenance on the equipment, it should be disconnected from the power source supply;
- All equipment maintenance, whether electrical or mechanical, must be performed by authorized or qualified professionals;
- Combustion engine maintenance must be performed in accordance with the engine manual.

5.1 Replacing Drum (Fig.13)

1st To remove the drum, place in horizontal position and remove the bolt (3.1), as show in **Inset A**. Suspend the drum, with the help of a hoist, using a chain to fix the mixing blades (**Inset B**).

Fig.13





POS.	Description	QTY.	CODE	DRAW. NO.
3.13	Castle Nut UNS - 1" x 14F for 400 liters	02	21020959	-
3.14	Plastic cover for 400 liters mixers	02	24110102	4.122.007
3.15	Counter pin 3/16"	02	21050106	-
3.16	Central shaft without nut for 400 liters	01	31020295	3.114.001
Kit	Central shaft with nut for 400 liters (parts 3.12/3.13/3.15/3.16)	02	31020297	4.74.145
3.17	Hex nut UNC-3/8" galvanized	02	21020117	-
3.18	Spring lockwasher 3/8" galvanized	02	21030163	-
3.19	Flat washer 3/8" white zinc	04	21030251	-
3.20	Hex Head Screw 3/8"x4.1/2"	02	21010250	-
3.21	Hex Head Screw M8 x 10mm 8.8 galvanized	02	21013022	-
3.22	Steel yoke eccentric bushing	02	30230233	3.118.017
3.23	Rigid grooved ball bearing 6204Z NSK	01	22020202	-
3.24	Pinion shaft - 20mm for 400 liters Prof/Rent/Max	01	31020026	3.114.002
3.25	Elastic ring E-20 for 400 LTS mixer	01	21060118	-
3.26	Lock Washer Steel 1/2"	01	21030164	-
3.27	Hex bolt partial thread BSW 1/2"x3.1/2" galvanized	01	21010433	-
3.28	Plate Side Right Rack Gear Reducer Protection Assembly	02	29121532	3.119.097
3.29	Flange Hex Screw Fully Threaded M6 x 16	12	21012986	-
3.30	Self-locking hex nut M-6 galvanized	04	21021126	-
3.31	Plate Side Left Rack Gear Reducer Protection Assembly	01	29121533	3.119.100
3.32	Plate Gutter Assembly	02	29121534	3.119.103
3.33	Pinion Side Right Rack Gear Protection Assembly	01	29121540	3.119.091
3.34	Pinion Side Left Rack Gear Protection Assembly	01	29121539	3.119.094
3.35	Flat Washer 8mm galvanized	02	21030702	-
3.36	Lock Washer DN 8 ZNBR	02	21030405	-

MOTOR PROTECTION BOX

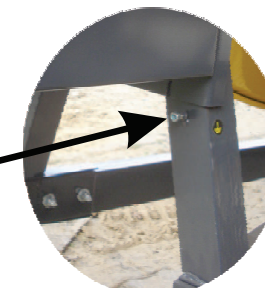
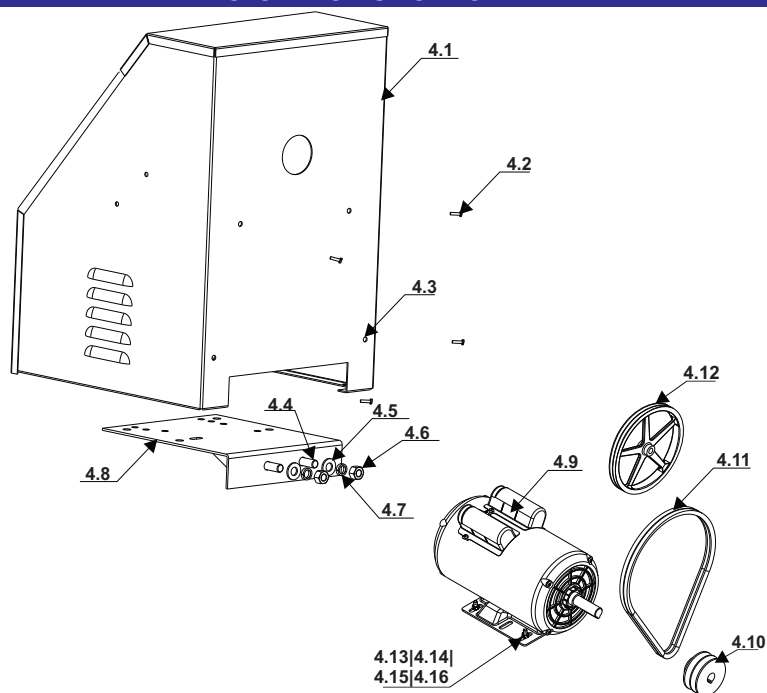


Figure C = earth point for machine

- The earth wire passes through the on/off switch; it must not be interrupted nor connected to the contacts.

- Never connect the earth wire to the neutral wire.

! - The earth of the product must be in accordance with current standards in your country, and in the absence of these, they must be in accordance with international standards.

Electric Extensions

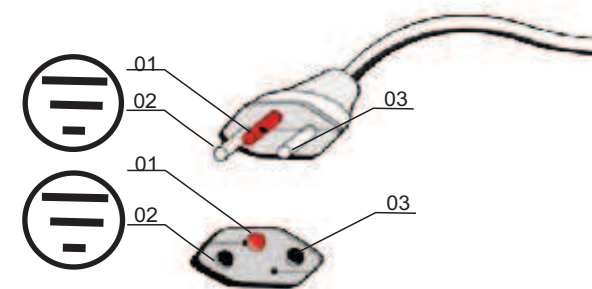
- For gauge and extension length dimensioning, these must be dimensioned according to current standards in your country, and in the absence of these, they must be in accordance with international standards.

! - Never connect more than one piece of equipment to the same socket or electrical extension.

! - Ensure that the socket, plug, cable and connections are in a perfect state and that they are compatible with the equipment;

- An inadequate extension can increase fire risk.

Original Menegotti concrete mixers supplied with single phase motors are come with NBR 14136 standard plugs, have three pins (including earth wire) and prevent accidental contact with the plug Terminals (pins).



Terminal Sequence (pins).
Earth Terminal (01), Neutral Terminal (02) and Phase Terminal (03).

1.11 Equipment supplied without Electric Motor

! - The electrical devices, their installations and the earth of the product must be in accordance with current standards in your country, and in the absence of these, they must be in accordance with international standards.



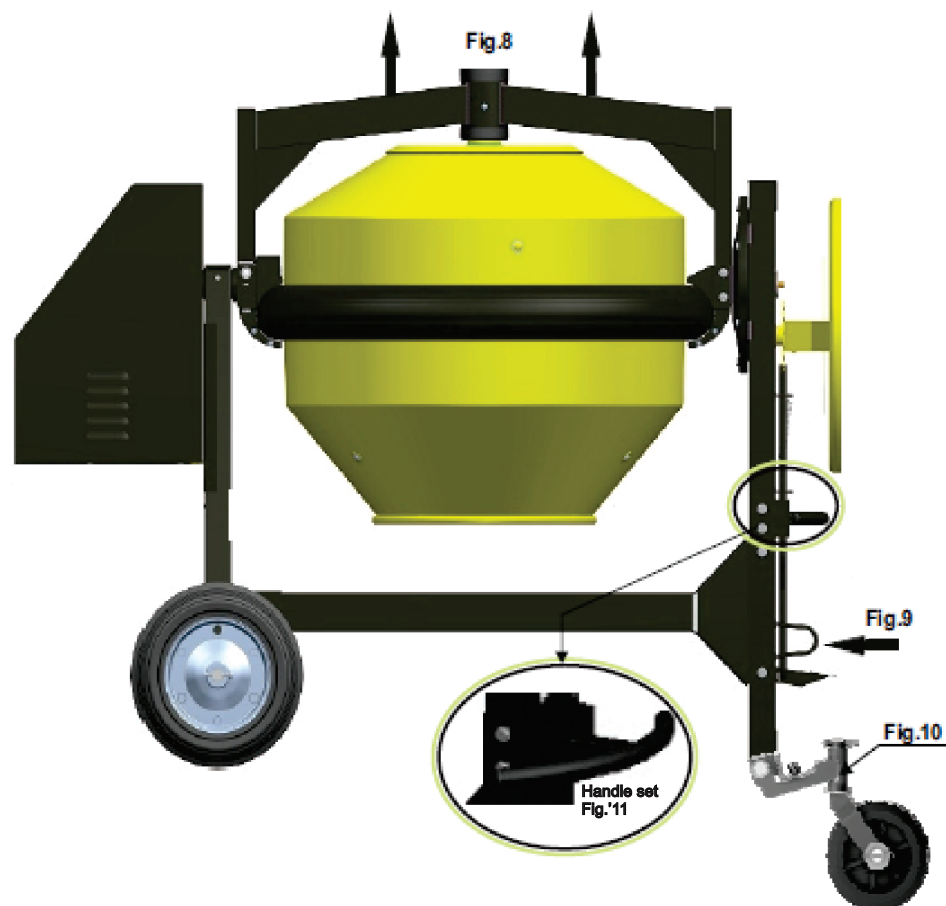
2. LIFTING AND TRANSPORTING

2.1 Lifting

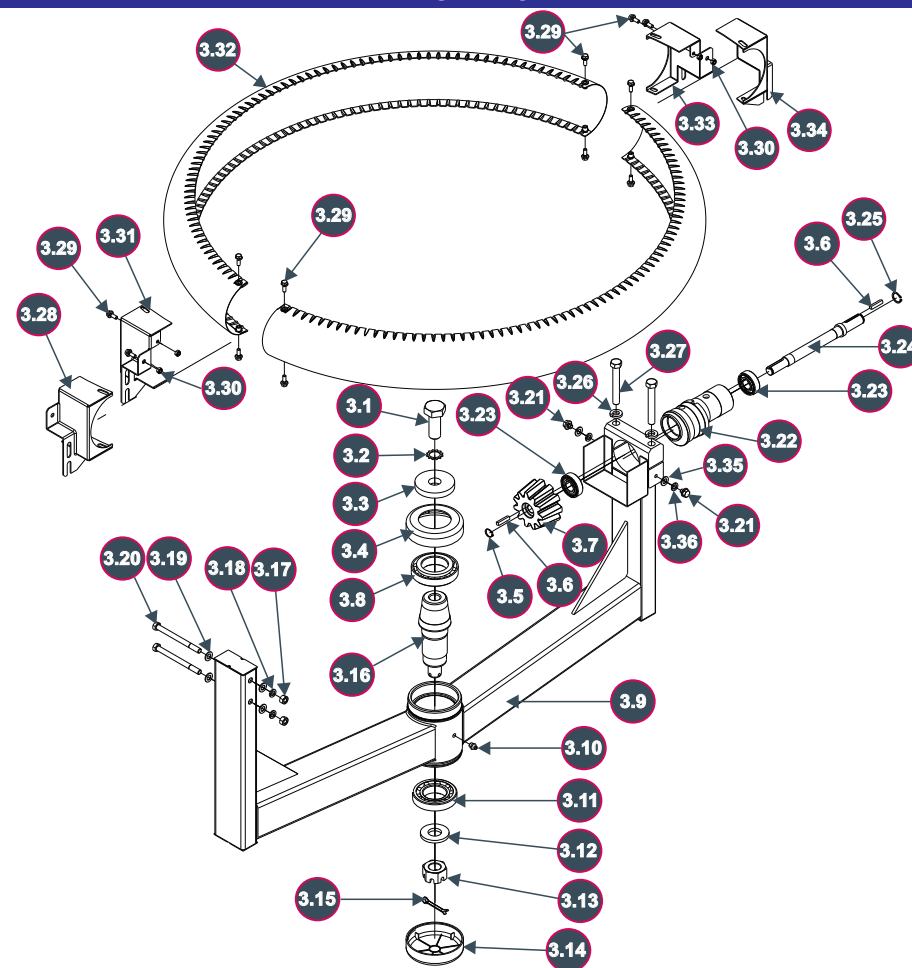
The concrete mixers must be lifted by the lower side of the steel yoke, with the drum facing down, as shown by the vertical arrows in **figure 08**, using the two support points for hoisting. Abrupt movement and contact with other objects must be avoided.

2.2 Transporting

The concrete mixers have a hook on the large column specifically for the purpose of transporting the machine, as shown by the horizontal arrow in **figure 09**. The concrete mixers must be moved using the rear wheels, or the optional Auxiliary Wheel Kit (this is not supplied with the machine - **figure 10**) lifting the front. The Max comes with a handle set **figure 11**.



STEEL YOKE

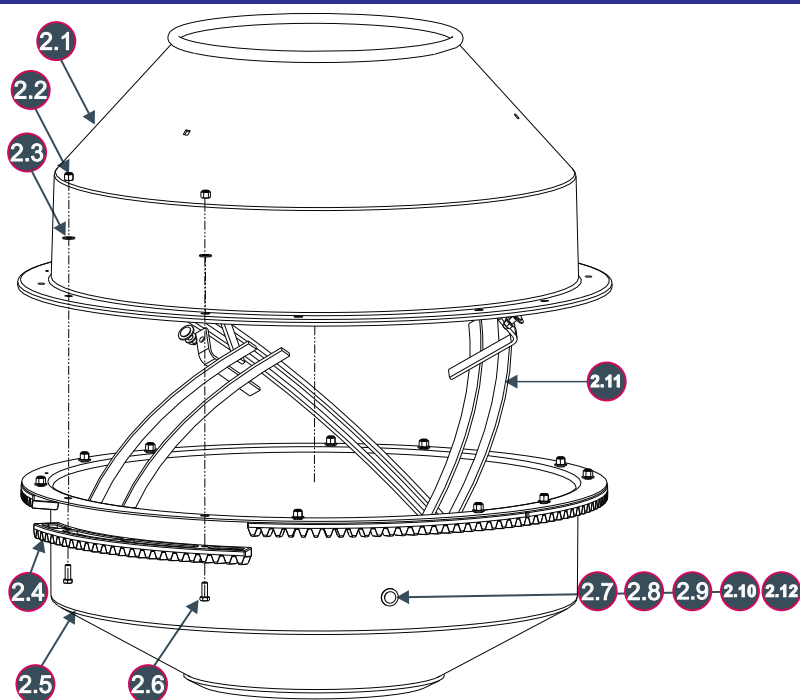


POS.	Description	QTY.	CODE	DRAW. NO.
3.1	Hex head bolt UNC 7/8"	01	21010292	-
3.2	Toothed washer A-22	01	21030347	-
3.3	Drum washer 400L	01	30100003	4.122.008
3.4	Plastic cover drilled	01	24110168	4.122.183
3.5	Elastic Ring E-17	01	21060115	-
3.6	Taper key 6x6x30mm	02	30160002	4.122.009
3.7	Pinion Z-11 Prof/Rent/Max/Flex Con. Mixer 400L	01	31030007	4.123.001
3.8	Conical bearing 30210 for 400 liters	01	22020608	-
3.9	Steel yoke 400L Max Concrete Mixer	01	32030042	3.106.035
3.10	Grease Nipples Straight 1/8" BSP	01	24040101	-
3.11	Conical bearing 30209 for 400 liters	01	22020607	-
3.12	Flat washer DN26	01	30100079	4.122.006



POS.	Description	QTY.	CODE	DRAW. NO.
1.22	Hex bolt full thread UNC 3/8"x2.1/2" galvanized	02	21010251	-
1.23	Hex. bolt partial thread UNC 3/8"x5.1/2" galvan.	01	21010150	-
1.24	Pedal bushing 400L Max/Flex	01	25120122	4.122.320
1.25	Brake pedal 120/150/250/400L Concrete Mixer	01	31190002	4.122.003
1.26	Tension spring	01	21090116	3.117.038
1.27	Round line plug	02	24110100	-
1.28	Handle set Max 400L	01	32030041	3.122.121
1.29	Self-locking hex nut BSW 1/2" zinc	01	21021070	-

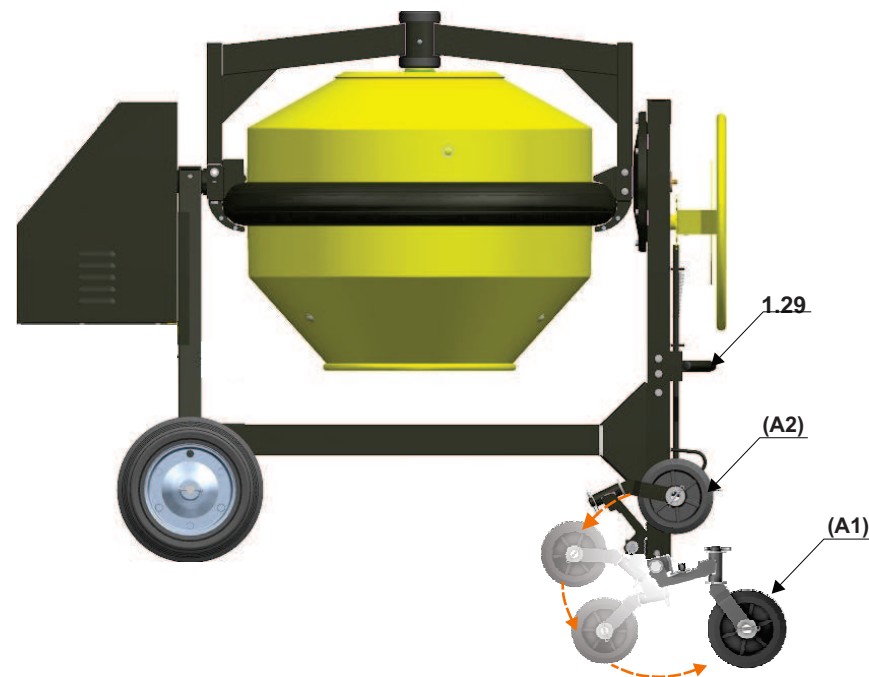
DRUM



POS.	Description	QTY.	CODE	DRAW. NO.
2.1	Upprer drum Concrete Mixer Max 400L	01	34600077	3.107.101
2.2	Self-locking hex nut 3/8" UNC galvanized	12	21021059	-
2.3	Flat washer 3/8"	12	21030251	-
2.4	Segmented rack gear FC 200 400L Max/Flex/Soft	06	31180010	2.124.012
2.5	Background Drum base assembly Max 400	01	34600089	3.107.102
2.6	Hex Head Screw Full Thread 3/8" UNC x 1"	12	21010266	-
2.7	French bolt 3/8" x 1" zinc	06	21011413	-
2.8	Flat washer steel 1/2"	06	21030250	-
2.9	Flat washer steel 3/8" galvanized	06	21030251	-
2.10	Self-locking hex nut 3/8" UNC galvanized	06	21021059	-
2.11	Drum mixing blade	03	32270063	3.107.052
2.12	Cardboard type washer	12	30100114	4.107.002



There is an optional Auxiliary Wheel Kit for transporting Max concrete mixers. Position (A1) only when empty / Position (A2) only for working.
For the purpose of moving, simply suspend the handle set (1.29) the Auxiliary Wheel Kit will position normally. For work, follow the same moving procedure.



Transporting position



Work position



3. WORK OPERATION

3.1 Work Location for Equipment Operation

Place the concrete mixer on a firm, flat surface, so as to facilitate the loading and unloading process.

3.2 Electrical Running

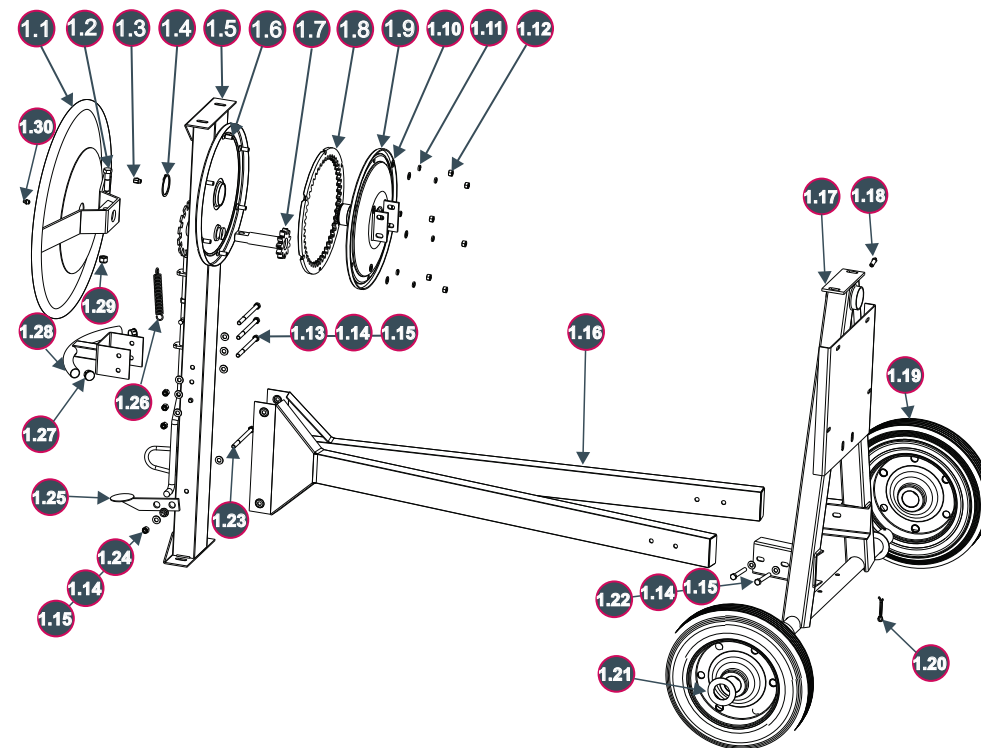
- 1st Switch on the interrupter which is inside the motor protection box, taking extension recommendations into consideration.
- 2nd Incline the drum to the desired angle. This movement is performed by turning the hand wheel and at the same time stepping on the pedal, which unlocks the steel yoke rotation.
- 3rd Load the drum and leave it mixing for around two and a half minutes.
- 4th When mixing finishes, incline the drum until the load has been emptied;
- 5th To load the drum again, keep the equipment switched on, observing the precautions in this Manual during its operation.

3.3 Cleaning and Conserving the Equipment

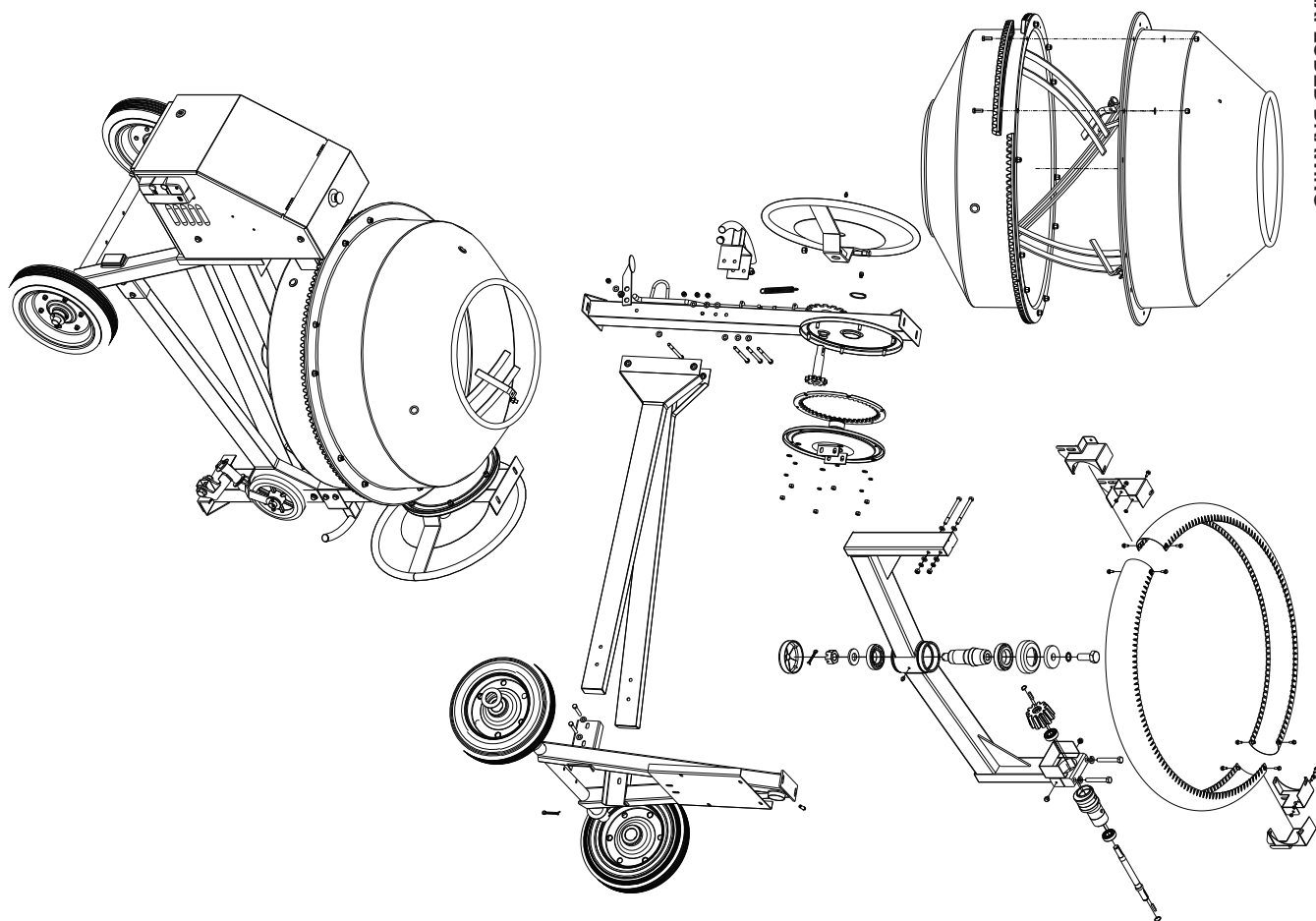
- After every work session, clean the equipment, especially the drum, removing all concrete from inside and around it, checking very carefully for concrete lodged on the blades and the inside parts
-  - Be careful not to throw water over the motor when it is switched on or when the terminals are connected to the power supply.
- Follow the lubrication plans for the parts fitted with grease nipples.



COLUMNS AND CHASSIS

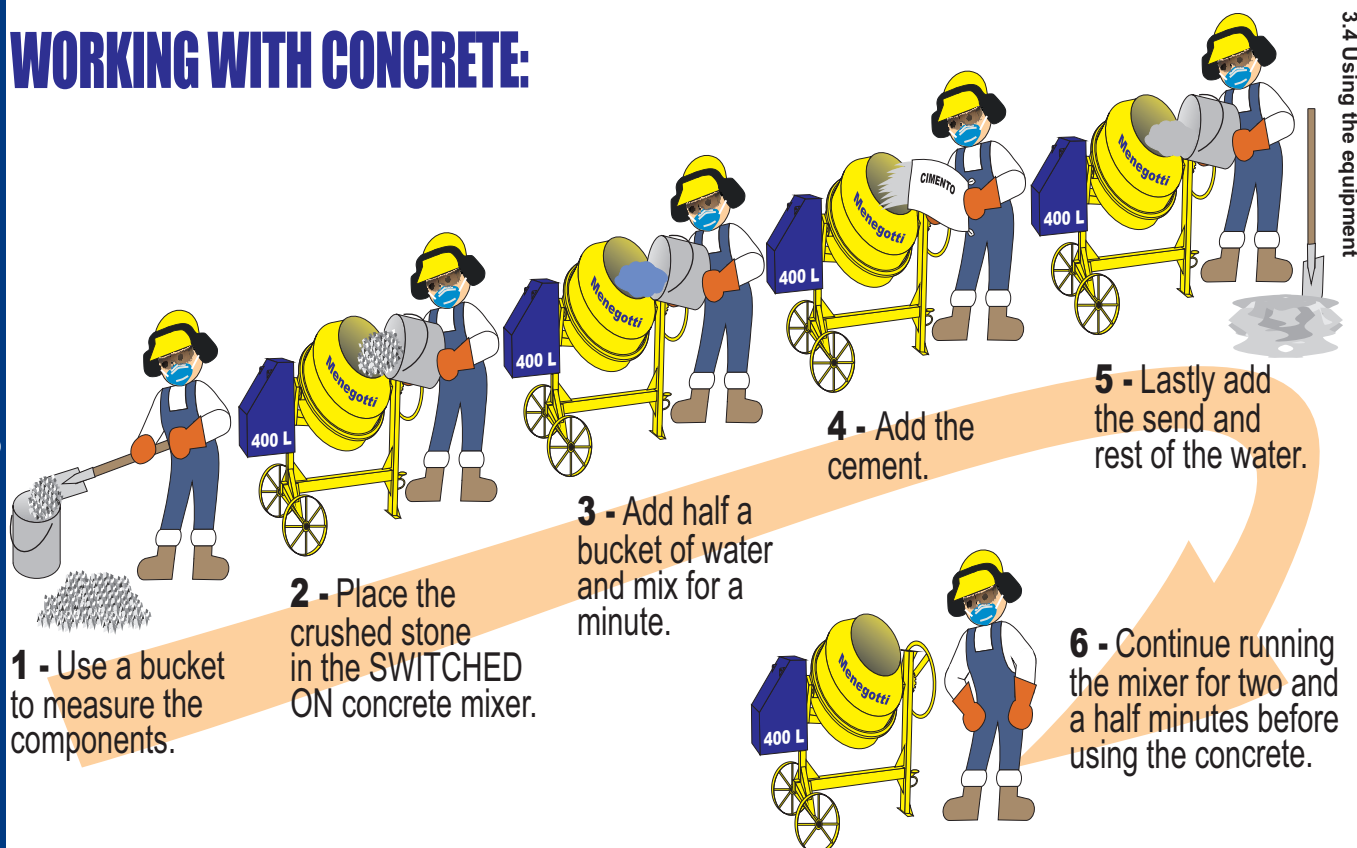


POS.	Description	QTY.	CODE	DRAW. NO
1.1	Steering wheel Max Concrete Mixer with protection	01	31200025	3.122.122
1.2	Hex bolt partial thread BSW 1/2"X 2" zinc	01	21010313	-
1.3	Grease Cup BSP 1/8 90:	01	24040105	-
1.4	Elastic Ring E-54	01	21060146	-
1.5	Large column Max 400L	01	32030038	3.110.128
1.6	Countersunk head screw with slot 3/8"X 1"	06	21011144	-
1.7	Wheel shaft with gear Z-11 Concrete Mixer Max 400L	01	31020452	4.114.079
1.8	Gear reducer Z-48 Concrete Mixer Max 400L	01	31030038	3.121.014
1.9	Reducer disc Concrete Mixer Max 400L	01	-	3.121.013
1.10	Flat washer steel 3/8" galvanized	06	21030251	-
1.11	Lock washer 3/8"	06	21030163	-
1.12	Hex. Nut 3/8" galvanized	06	21020117	-
1.13	Hex bolt partial thread UNC 3/8"X 5" galvanized	03	21010137	-
1.14	Flat washer steel 3/8" galvanized	16	21030251	-
1.15	Self-locking hex. nut 3/8" UNC galvanized	08	21021059	-
1.16	Kit chassis "V" disassembled Max 400L	02	32030040	3.125.092
1.17	Small column set	01	32030039	3.112.130
1.18	Straight grease nipple 1/8" x 22mm BSP galvanized	01	24040110	-
1.19	Rubber wheel with metallic core	02	24110188	-
1.20	Counter Pin 3/16" x 2"	02	21050107	-
1.21	Flat washer	02	21030222	4.122.004



4 EXPLODED DRAWING

WORKING WITH CONCRETE:





3.5 Lubrication

* Lubricate (with the help of the grease nipples installed in the machine) the rotating parts of the machine, such as: steering wheel, bushings, bearings and ball bearings.

* Lubricate the equipment at the beginning of operating periods, at all lubrication inlets.



Lubrication of the pinion/rack gear assembly is not recommended due to the fact that aggregates such as sand, cement and gravel dust, among others, can adhere to the lubricating agent, causing the mixture to become extremely abrasive, thus resulting in premature wear.



ATTENTION:

- For better lubrication of ball bearings, align the slit in the Steel Yoke Eccentric Bushing (B) with the grease nipple (A).

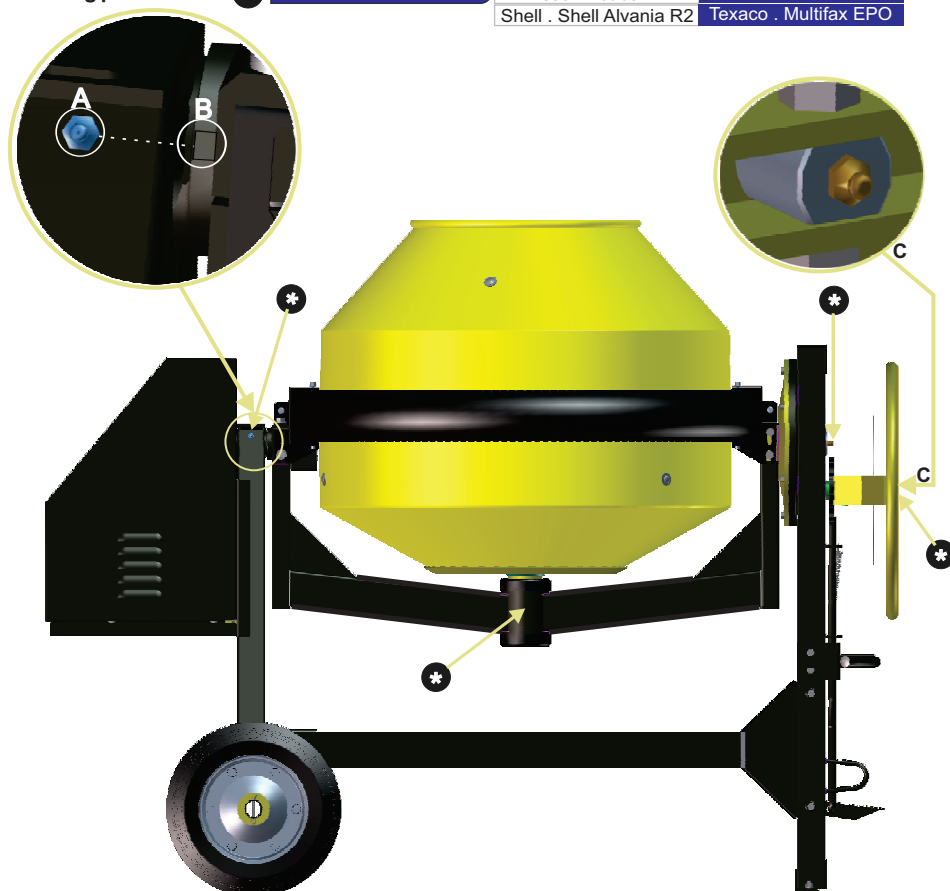
-For efficient lubrication of the hand wheel shaft, turn the wheel during lubrication(C).

Lubricating points



RECOMMENDED GREASES

Castrol . Grease LM2	Atlantic . Litholine 2
Esso . Beacon 2	Mobil . Mobilux 3
Shell . Shell Alvania R2	Texaco . Multifax EPO



3.6 Rack Gear Regulation

The rack gear should be regulated through the eccentric bushing .

Observe the regulation procedure:

-Use a 19mm wrench to loosen the split bearing (3.21) bolts (3.30) (Fig.2).

--Use a 75mm hook wrench (Detail B) turn till it fits between the teeth, with a gap between the teeth of 5mm (Detail A) (Fig. 1)

Fig.1

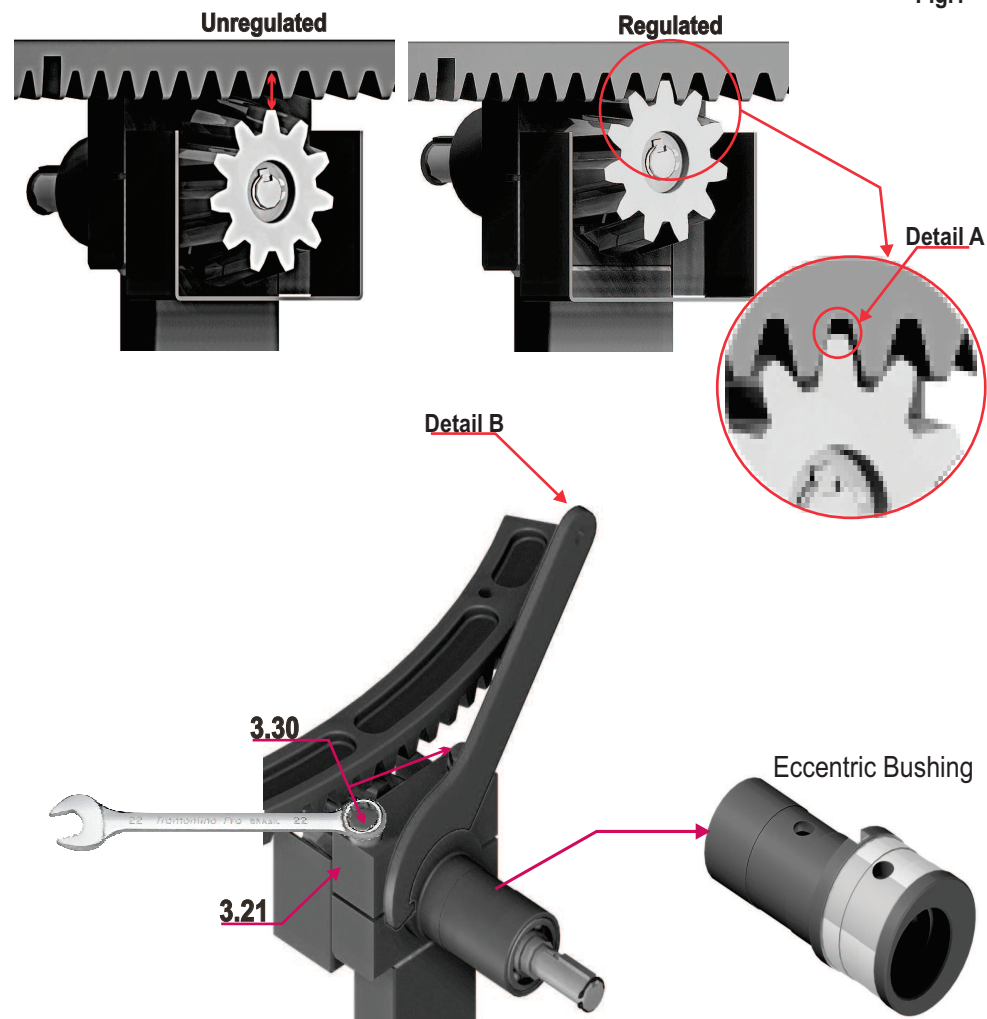


Fig.2