



TERM OF WARRANTY

A - Turner Morris guarantees this product against manufacturing or material defects for a period of 12 months, from the date of purchase proven through presentation of the first end consumer receipt.

B - This guarantee includes the changing of parts and repairs due to manufacturing defects duly stated by the factory or Authorized Technical Assistance Service. This product will lose its guarantee if suffering damages due to accidents, acts of nature, inappropriate application, connected to incorrect power source or submitted to vast energy variations, or, should it be opened by people or establishments not authorized by Turner Morris.

C - Freight expenses for the product to the technical assistant or factory will be paid by the consumer. Turner Morris has a broad Network of Technical Assistants throughout the national territory.

D - For equipment acquired with an electric drive, the guarantee covers internal drive defects due to its manufacture. Defects not covered by this guarantee are: overloading due to lack of or excessive phase, use of voltage other than that specified, broken or crushed casing due to negligence in transporting and/or storage, connecting or energizing drive not within specifications and general defects caused by misuse and/or incorrect installation, duly confirmed through a technical



Important Hints

- The concrete mixer must be cleaned after use;
- Place the machine on a flat and level surface;
- Install the switch and drive according to the electrical current;
- Check the state of the drive belts periodically;
- Check the oil tank level periodically;
- Only close the tank valve in case of maintenance;
- The materials must be placed in the mixer when it is rotating and as quickly as possible;
- The bucket must be raised in a continuous action, without stops;
- Unloading must also be performed with the mixer rotating.



Attention

Connect the electric drive earth of this equipment.
Be aware of the risks and responsibility of not observing all precautions when operating any equipment activated by electrical power.



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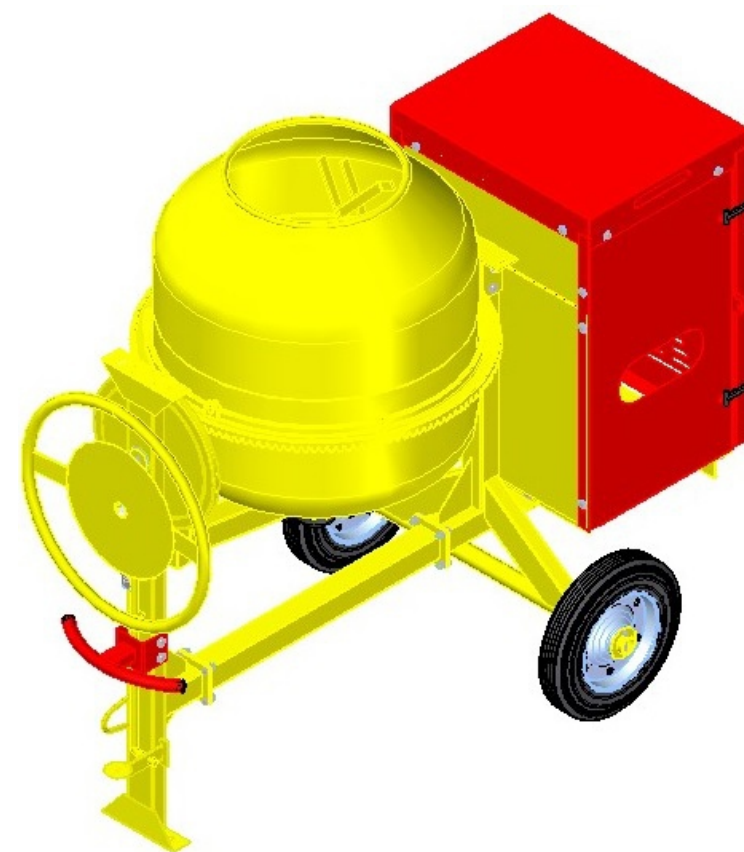
We reserve the right to alter product characteristics without prior notice.

24050512 R15 JULY/22



INSTRUCTION MANUAL

CONCRETE MIXER 250 LITERS





MAINTENANCE

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6.4 Replacement of Pinion (38):

1. Proceed as described in item 6.4 to remove drum, without removing ring gear;
2. Remove screw and locking washer;
3. Remove pinion (38) replacing the damaged piece while observing the adjustment described in item 6.3. If necessary, perform readjustment.

6.5 Replacing Internal Gear Support (24):

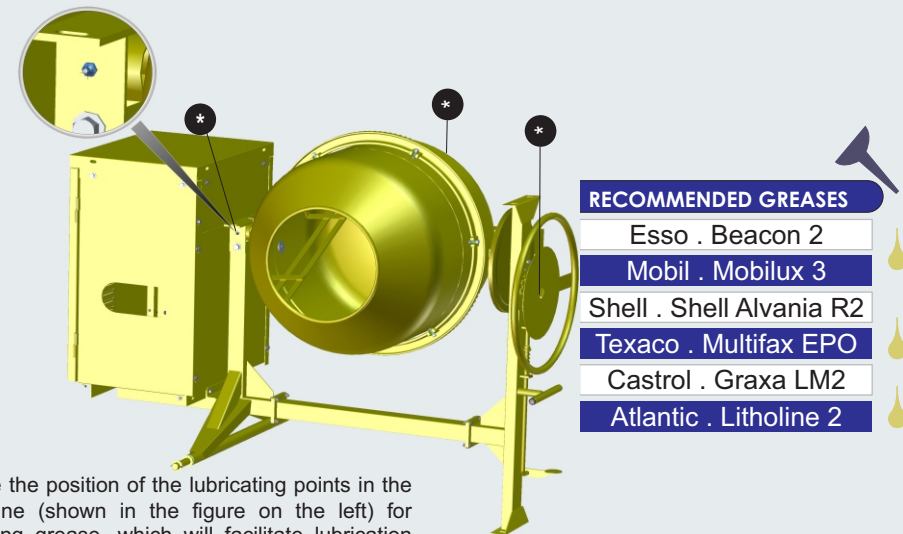
- 1°. Unscrew bolt and remove wheel (09);
- 2°. Remove the elastic ring (22);
- 3°. Remove the protection box from the drive (50);
- 4°. Remove the transmission belts located in the drive box;
- 5°. Turn the drum (01) upside down and suspended by a pulley in the center of the steel yoke to facilitate disassembly;
- 6°. Release the steel yoke (48) bearing and the internal gear support (24)
- 7°. Suspend the steel yoke/drum set and remove the internal gear support (24), also enabling replacement of the wheel shaft (23);
- 8°. Proceed to change the damaged pieces and reassemble the machine.

6.6 Lubrication

* Keep machine rotating parts lubricated, such as: bushings, and bearings (with the help of the grease fittings installed in the machine).

* Lubricate the equipment at the beginning of operation, applying grease to all lubrication points. When lubricating the pinion shaft bearing, the concrete mixer drum must be in a position where the steel yoke arm is perpendicular (90°) in relation to the machine column and the drum mouth must be turned to the same side where the grease fitting is. If not, the bearings will not be lubricated.

! 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.

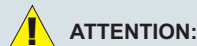


*Note the position of the lubricating points in the machine (shown in the figure on the left) for applying grease, which will facilitate lubrication work.



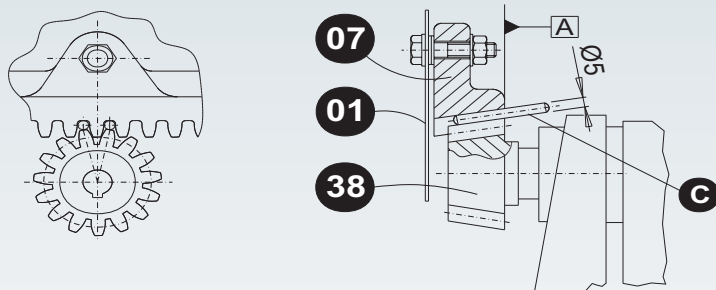
6. MAINTENANCE

6.1 Replacement of Ring Gear (07):



ATTENTION:

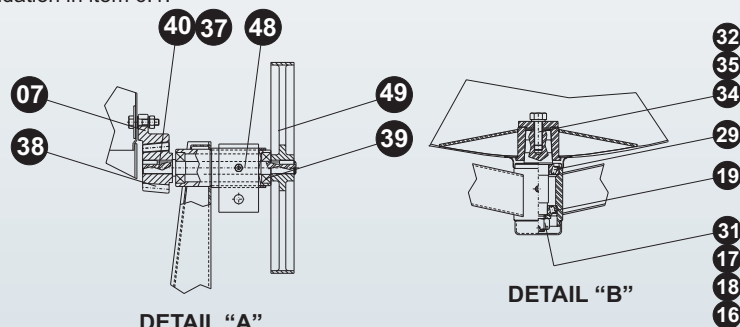
- Always, when performing maintenance to the equipment, make sure it is disconnected from the source.
- All equipment mechanical maintenance, must be done by authorized or qualified professionals.
- Combustion drive maintenance must be performed according to the drive manual.



1. Remove bolts from damaged ring gear (07) and replace it in accordance with the following assembly recommendations:
2. Use two 5 mm $\varnothing$ pins (C) to adjust the gap between teeth. This is necessary for the perfect running of the pinion and gear ring;
3. Adjust the alignment between ring gear and pinion using "A" as a reference, compensating the differences with flat washers

6.2 Replacement of Drum (01):

1. Remove the ring gear by removing its fixing bolts;
2. Remove drum fixing bolt (35) and the washer, located inside it;
3. Turn the drum till the opening faces downwards to facilitate removal;
4. Replace the damaged piece and reassemble the machine, following the gear ring assembly recommendation in item 6.1.



DETAIL "A"

DETAIL "B"

6.3 Replacing Conical Bearings No. 30207 and 30208:

1. Perform procedures described in item 6.4 to substitute drum (ring gear does not need to be removed);
2. Remove lower cover (16);
3. Loosen the cotter pin (31), the castle nut (17) and finally the flat washer (18);
4. Remove the No. 30207 conical bearing (31) and replace with the new piece;
5. Remove the central shaft (32) and remove the No. 30208 Bearing (29) replacing with the new piece;
6. It is recommended that all replacement bearings be oiled.

1- INFORMATION:

1.1 Manufacturer Identification

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1.2 Machine Identification

TURNER MORRIS concrete mixers are designed for the most demanding jobs. The transmission mechanism facilitates easy operation, requiring little effort on the part of the operator. The double mixing paddles increase work efficiency.

Note: With the objective of constantly improving its products, TURNER MORRIS reserves the right to perform any alterations without prior notice.

1.3 Manual Utilization

The manual must be fully read before beginning any operations. The manual contains useful information about the product, manufacturer, safety, spare parts, maintenance and conservation. For greater convenience, keep this manual handy for easy consultation.

1.4 Safety:



- Before using this equipment, carefully read this manual and follow the Manufacturer's instructions, such as how to reduce the risk of accidents in operation.
- It is expressly prohibited to remove or alter any safety device or characteristic, should this occur Turner Morris will not be held responsible.
- Use the equipment according to the instructions in this manual;



- In the case of damaged or missing pieces, contact Turner Morris by phone at + 27 (011) 221-3700 for replacement of same.
- With the machine turned off, conduct a daily inspection of the machine parts. In the case of problems, immediately contact the Turner Morris authorized service.



- Maintain a limited area exclusive for working with the equipment, always keeping the place clean, without obstructions and with good lighting;
- The operator must be trained or qualified to operate this equipment;



- Do not use clothing that is too loose and which might get caught in the machine;
- Always use gloves, safety goggles and ear protection.
- The motors must be installed by qualified professionals;
- Perform the maintenance recommended in this manual with qualified people and within the stipulated periods;



INFORMATION



INFORMATION



- Inspect all electrical extensions, mainly for cuts, cable friction and broken connections. Never use extensions that are not in good condition.
- Never use wet extensions or operate in wet environments (e.g. Pools of water).
- When cleaning the equipment, never throw water on 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, first let the motor cool down.



- Avoid contact with rotating parts

1.5 Technical Specifications

SPECIFICATIONS	UNIT	MIXER
Total Volume	liters	250
Capacity Mixed	liters	200
Final Capacity Mixed	liters	175
Number of Cycles/Hours	Cycles/Hours	15
Hourly Production	m³/h	3.0
Drum Rotation	rpm	28 (50Hz) 30 (60Hz) 30 (Combustion)
Weigth without Motor	kg	169.65
Dimensions (L x W x H)	mm	1588 x 900 x 1463
Drum Plate Thickness	mm	2
Flywheel Protection	-	Steel Plate
Engine Box	-	Electric or Combustion
Wheels	mm	57 Rubber
Belt	-	Vary the according to the engine

*Factor depends on motor manufacturer. The use of 50% more power than the electric motor is recommended.

**Consult availability and instruction for changing switch selector to electrical supply.

5 - WORK OPERATION

5.1 Working Place for Equipment Operating

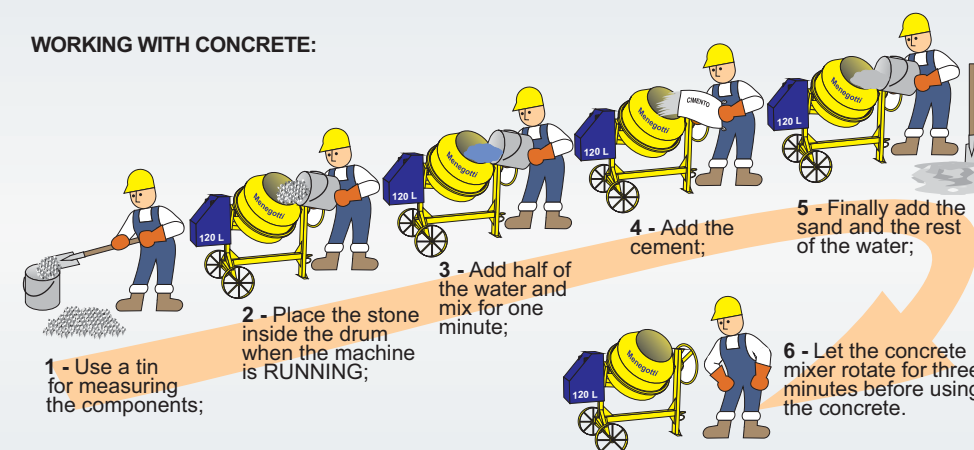
Place the concrete mixer on a flat and firm surface to facilitate loading and discharge process.

5.2 Electric Operation

1. Connect the cut-off switch which is in the motor protection box remembering to follow recommendations for the extension. The black button switches on the machine and red one switches it off;
2. Tilt the drum to the desired angle. This movement must be performed by turning the wheel and, at the same time, standing on the pedal that locks the steel yoke rotation;
3. Fill the drum and let it mix for about 2.5 minutes;
4. Once mixing is concluded, tilt the drum until the mixture is discharged;
5. To fill the drum again, keep the equipment turned on, taking care while it is running.

5.3 Equipment Utilization

WORKING WITH CONCRETE:



5.4 Equipment Cleaning and Conservation

-Always clean the equipment after use, specially the drum in order to remove all the concrete lodged inside it;

-Take care not to wet the motor.

-Make sure the equipment is lubricated through the grease fittings when required.



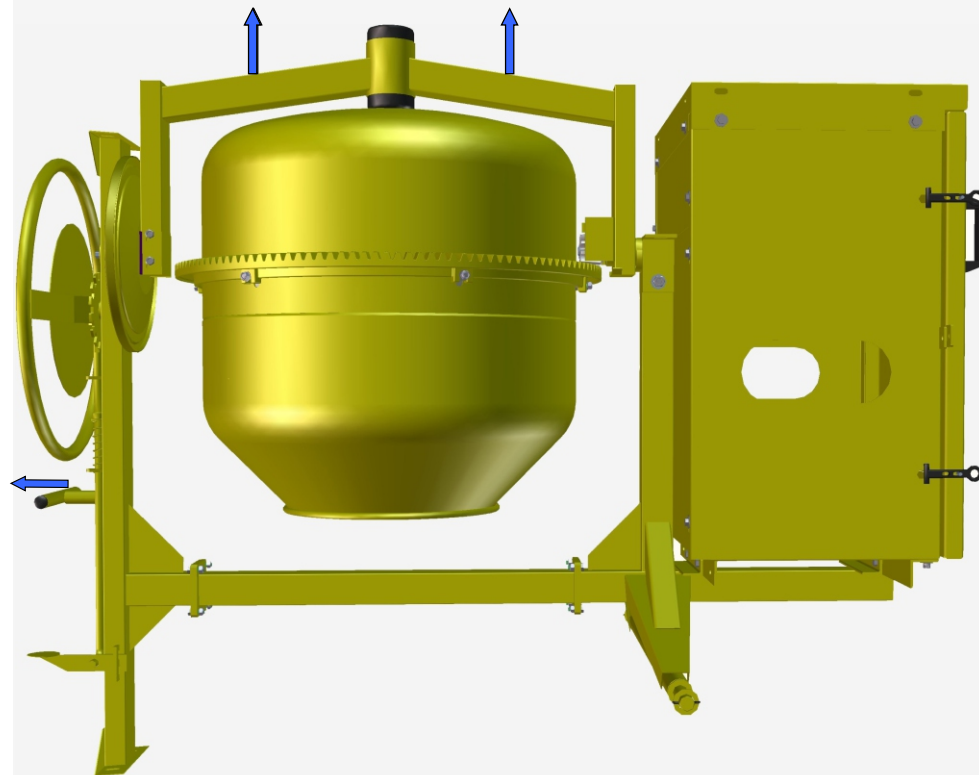
4. LIFTING, TRANSPORTING AND STORING

4.1 Lifting

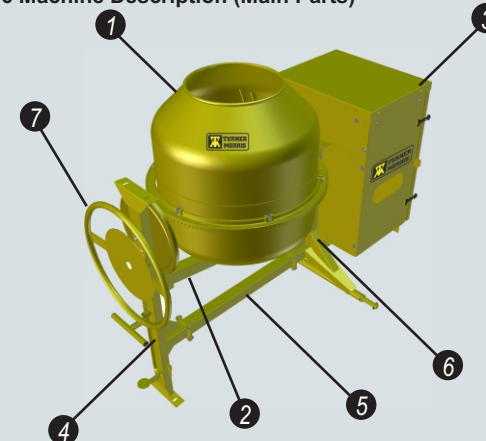
The concrete mixers must be lifted by the lower side of the steel yoke with the drum facing downwards, as shown by the vertical arrows in the figure, with the two support points of the hoist. Sharp movements and hitting against other objects must be avoided.

4.2 Transporting

The concrete mixers have a coupling in the large column expressly for the purpose of transporting the machine, as shown by the horizontal arrow in the figure. When moving the concrete mixers use the rear wheels, raising the front support



1.6 Machine Description (Main Parts)



N°	Description
1	Drum
2	Tilter
3	Motor Box
4	Larger Column
5	Chassis
6	Smaller Column
7	Wheel

1.7 Working and Operating Conditions

- Concrete mixers can be used in both indoor and outdoor environments.
- When filling a concrete mixer with a spade, do not place the spade inside the drum.
- The introduction of any object inside a moving drum can result in a serious accident.
- Improper use of this equipment, i.e. other than that for which it was projected, can pose a physical threat to the operator and those around him.
- In order to reduce operating risks when using this equipment, carefully follow the manufacturer's instructions.
- Read this instruction manual carefully;
- Use the equipment in accordance with this instruction manual;
- The operator must be trained or qualified to use this equipment;
- Set aside an exclusive area for working with the equipment. Keep this area well lit and clear at all times, without any obstacles;
- The removal of or alteration to any safety device or its characteristics is strictly forbidden. Should alterations be performed, Menegotti cannot be held responsible for any physical or material damage, with the user forfeiting all guarantee rights in relation to the equipment;
- Motors must be installed by qualified professionals;
- Perform all maintenance as instructed in this manual with qualified people and within the stipulated periodicity;
- Whenever performing maintenance on this equipment, disconnect the cable from the power supply.
- All equipment maintenance, whether electrical or mechanical, must be performed by authorized or licensed people;

1.8 Noise Level During Operation

Since the noise level during mixer operation, with the addition of stone and gravel into the drum to simulate a maximum noise level, can reach up to 95 decibels, the use of ear protection is recommended during prolonged operation.

Empty	Full
85-86 dBA	91-92 dBA



INFORMATION



SPARE PARTS

1.9 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 electric motor

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

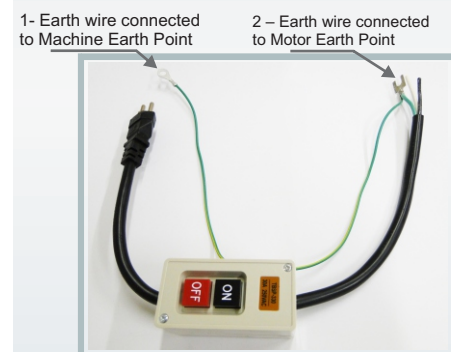


Figure A – Single phase starting switch with earth

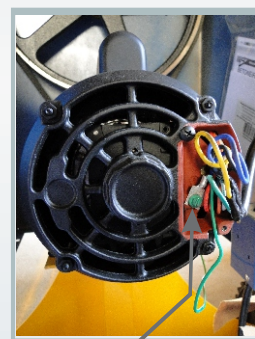


Figure B – Earth point for electric motor

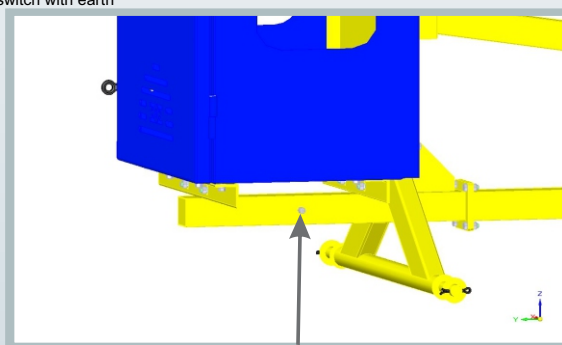


Figure C – Earth point for machine

POS.	DESCRIPTION	QTY.	CODE	DRAW. N°
41	Smaller Column	01	-	3.112.139
42	Flat Washer D45XD28X2,66mm	01	21030219	4.122.023
43	Counter Pin 3/16" x 1.1/2"	01	21050106	-
44	Hex Nut BSW 1/2"	01	21020207	-
45	Lock Washer 1/2"	01	21030164	-
46	Flat Washer 1/2"	02	21030250	-
47	Hex. Head Screw BSW 1/2"x3.1/2"	01	21010433	-
48	Dumper Bearing	01	31140055	3.116.001
49	Driven Pulley (18mm with external diam. of 450mm)	01	31090271	3.109.070
50	Cover of the multipurpose engine box to driven pulley with 450mm	01	32420059	3.108.299
51	Allen bolt Full Thread 5/16" UNC x 3/4" Galv.	02	21010523	-
52	Handle	01	24070164	-
53	Lock Washer 5/16"	02	21030112	-
54	Hex Nut UNC 5/16"	02	21021052	-
55	Rubber Fastener	02	24030221	4.122.071
56	Hex Head Screw UNC 5/16" x 3/4"	14	21010268	-
57	Hex Nut UNC 5/16"	14	21021052	-
58	Lock Washer 5/16"	14	21030112	-
59	Flat Washer 5/16"	28	21030252	-
60	Driver Pulley (hole with 19,05mm)	01	31090270	4.109.070
61	Hex Head Screw UNC 3/8" x 1.1/2"	04	21010246	-
62	Flat Washer Steel 3/8"x27x4,0mm Pol.	08	21030236	-
63	Lock Washer 3/8"	12	21030163	-
64	Hex Nut UNC 3/8"	12	21020117	-
65	Big Drive Support	01	32180016	3.112.011
66	Small Drive Support	01	32180017	3.112.012
67	Drive Support	02	32060144	3.112.013
68	Tension spring	01	21090116	3.117.038
69	Hex Head Screw Full Thread 3/8" UNC x 2" Galv	04	21010275	-
70	Hex. Head Screw Full Thread 3/8" UNC x 1" Galv.	04	21010266	-
71	Flat Washer Steel 3/8" GAL.	16	21030251	-
72	Hex Head Screw Partial Thread UNC 3/8"x4" Galv	04	21010133	-
73	Spring Lockwasher 3/8" Galv.	04	21030163	-
74	Hex. Nut UNC-3/8"Galv.	04	21020117	-
75	Self Locking Hex Nut 1/4" UNC Galvanized	01	21021004	-
76	Bottom's plate	01	3108013	3.108.013
77	Left side	01	32030036	3.108.150
78	Door	01	-	-
Kit	Assembled door (parts 51-54 and 78)	01	32040079	3.108.152
79	Elastic Ring E-8	02	21060150	-
80	Right side	01	32030035	3.108.151
Kit	Assembled Multipurpose Engine Box (parts 50-54/76-80)	01	-	3.108.300



3. SPARE PARTS LIST:

POS.	DESCRIPTION	QTY.	CODE	DRAW. N°
1	Drum 3 Mixer	01	34600021	3.107.047
2	Washer	06	30100114	4.107.002
3	Washer	06	30100070	4.107.003
4	Flat Washer 3/8"x27x2,7mm Pol.	12	21030230	474.10
5	Hex Nut UNC 3/8"	06	21021059	-
6	Hex Head Screw UNC 3/8" x 1.1/2"	06	21010275	-
7	Rack Gear	01	31180003	2.124.009
8	Larger Column	01	-	3.110.087
9	Steering Wheel	01	31200018	3.122.048
10	Flat Washer 3/4"	01	21030225	-
11	Hex Nut Self Locker UNC 3/4"	01	21021011	-
12	Grease Nipples Straight 1/8"	03	24040101	-
13	Hex Head Screw UNC 3/8" x 1"	01	21010266	-
14	Hex Nut UNC 3/8"	08	21021059	-
15	Chassis	01	30130002	3.125.122
16	Plastic Cover	01	24110101	4.122.090
17	Castle Nut UNS - 1" x 14F	01	21020959	-
18	Flat Washer DN48	01	21030803	4.122.106
19	Conical Bearing 30207	01	22020605	-
20	Tilter	01	32460036	2.130.006
21	Grease Cup BSP 1/8" BSP 90°	01	24040105	-
22	Elastic Ring E-54	01	21060146	-
23	Wheel Gear Shaft	01	31020414	4.114.005
24	Bearing Reduction	01	32040218	3.121.006
25	Hex Head Screw UNC 3/8" x 4"	02	21010133	-
26	Flat Washer 3/8"	04	21030251	-
27	Lock Washer 3/8"	02	21030163	-
28	Hex Nut UNC 3/8"	02	21020117	-
29	Conical Bearing 30208	01	22020606	-
30	Plastic Cover Drilled	01	24110172	4.122.213
31	Counter Pin 3/16" x 1.1/2"	01	21050106	-
32	Central Shaft	01	31020348	3.114.019
33	Washer	01	30100103	4.122.100
34	Toothed Washer A - 16.5 DIN6798	01	21030327	-
35	Hex Head Screw UNC 5/8" x 2.1/4"	01	21013340	-
36	Elastic Ring E - 18	02	21060116	-
37	Taper Key 6X6X30mm	02	30160002	4.122.009
38	Pinion Z - 11	01	31030027	3.123.004
39	Rigid Grooved Ball Bearing 6204Z	02	22020214	-
40	Pinion Shaft	01	31020350	3.114.021

- 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

The following table gives the appropriate wire gauges for conducting current in electrical extensions.

Gauge (mm²)	Concrete Mixer Model
2,5	250L Rental

- **Electrical extension must not exceed 30 m.**

- **For other extension gauge and length dimensions, these must be 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;

- If a longer extension is required, consult a technician to select the correct gauge. An inadequate extension can increase fire risk.

Original Menegotti concrete mixers supplied with single phase motors are come with NBR 14136 standard sockets 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).

1.10 Equipment with Combustion Engine

! - Never inhale exhaust fumes as this can be harmful to your health;
! - The Carbon monoxide from the exhaust of internal combustion engines can cause death if used in confined spaces;

! - Do not operate or refuel the gasoline or diesel engine in a confined space without sufficient ventilation;

- Do not fuel the equipment when the engine is hot, this could become very dangerous and ensure that there is sufficient ventilation during this procedure;

- Do not touch the motor when it is running as it can burn your skin.

- Use fuel according to engine model;

- Do not use fuel of doubtful origin.

- To prevent electric shock, never touch the spark plug while the engine is running;

! - The correct use, cleaning and maintenance of combustion engines must always be in accordance with the instructions contained in the manual of the engine manufacturer.

1.11 Equipment supplied without Electric Motor

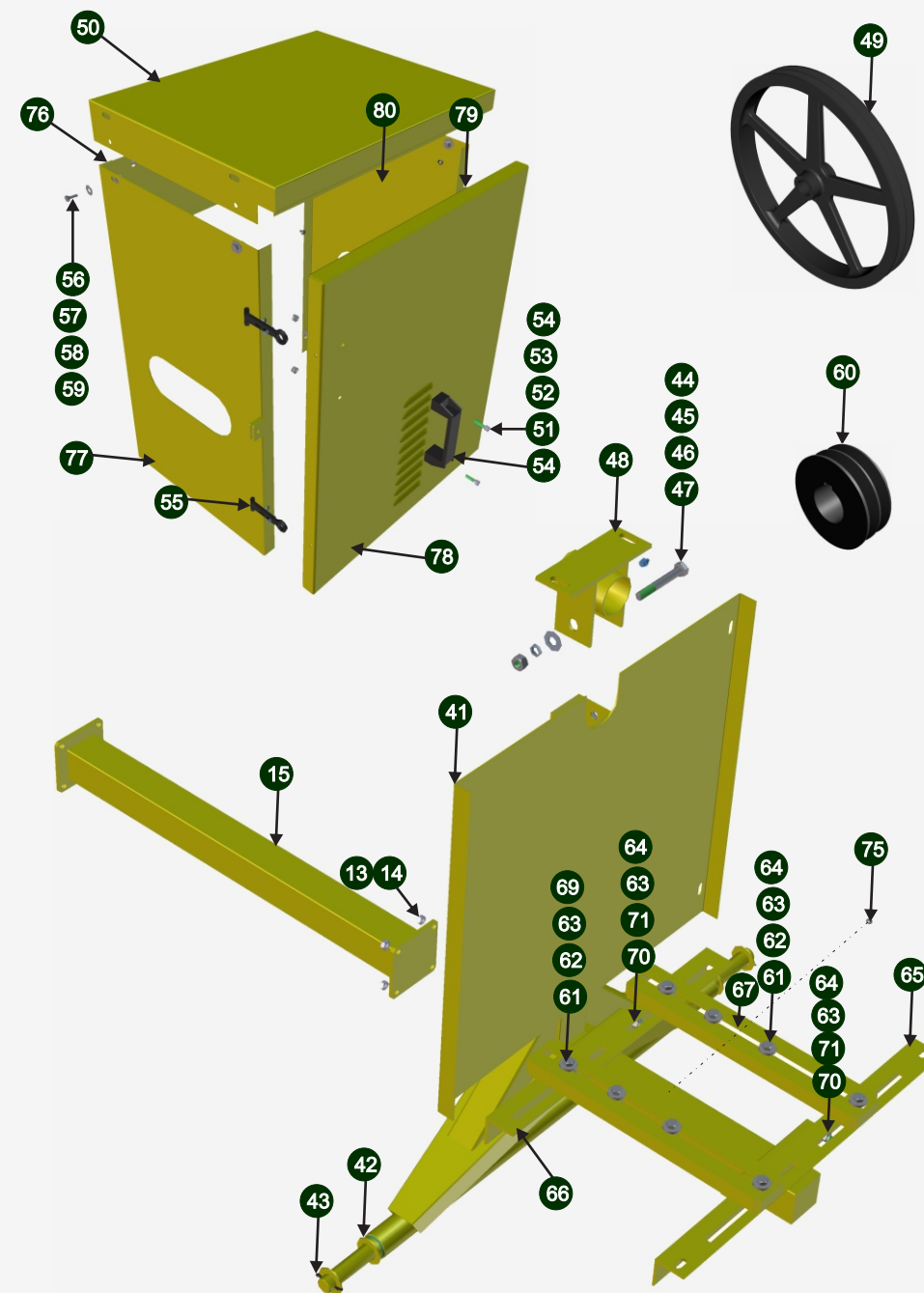
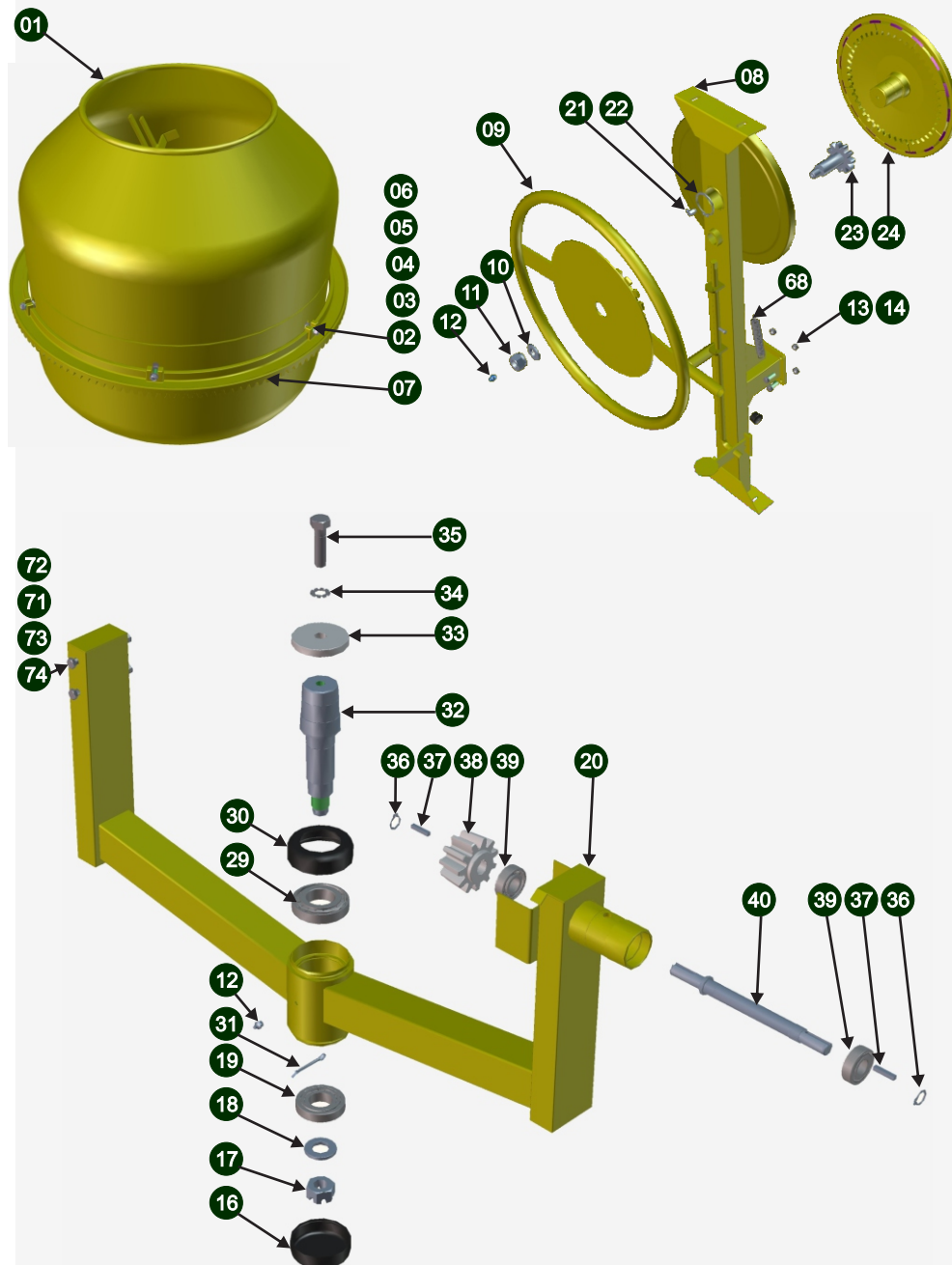
! - The electrical devices, their installations and the earth of the product must be in accordance with current standards in your country, and in the absence of these, they must be in

SPARE PARTS



SPARE PARTS

2 EXPLODED DRAWING:



7

8