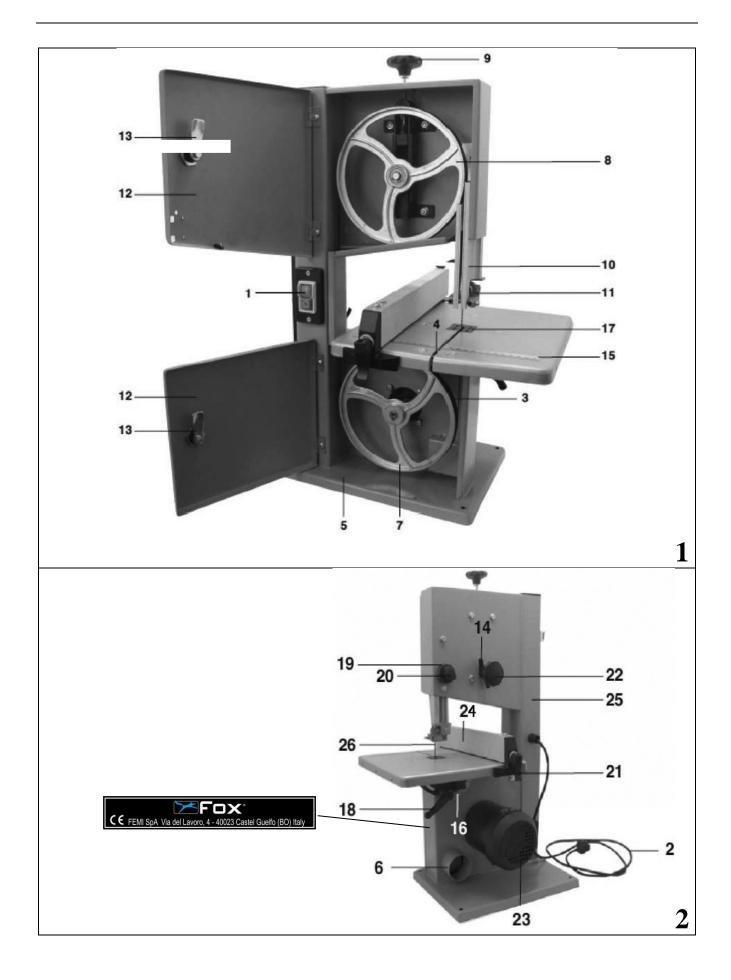
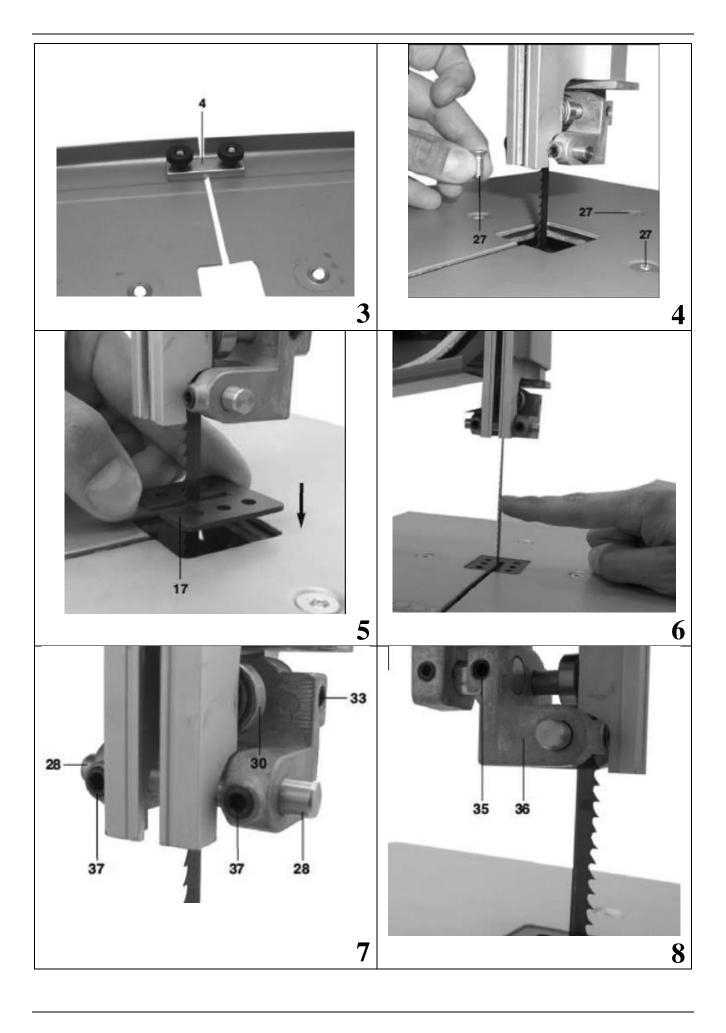
# BANDSAW Instruction Manual

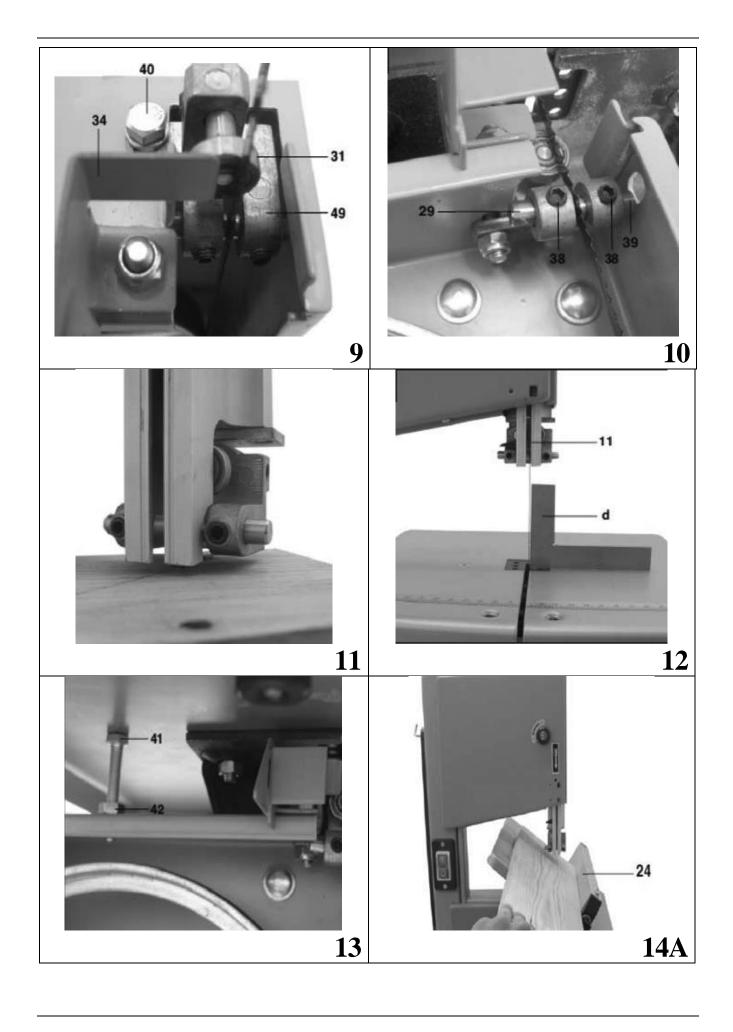


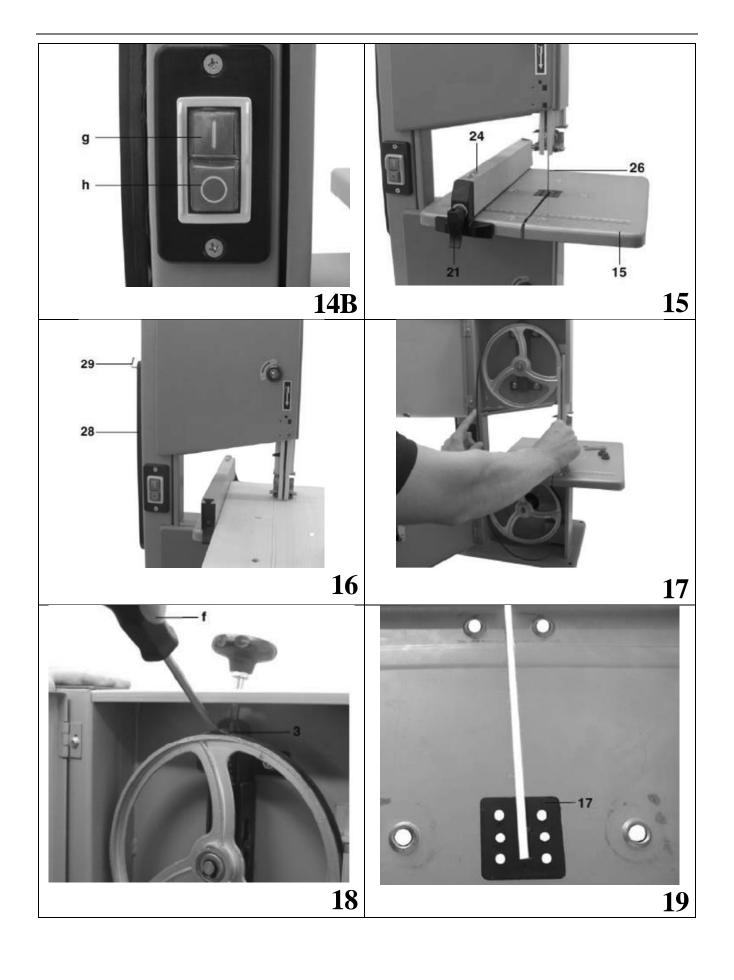
FOX model F28-182A













## INDEX

SAFETY INSTRUCTIONS	7
PERSONNEL AUTHORIZED TO USE THE MACHINE	7
GENERAL SAFETY INSTRUCTIONS	
ADDITIONAL SAFETY INSTRUCTIONS FOR BANDSAWS	_
ENVIRONMENTAL PROTECTION	_
INFORMATION FOR USERS	
SYMBOLS	
ELECTRICAL CONNECTIONS	
EARTHING INSTRUCTIONS	
EXTENSION LEADS	
USE COMPLIANT TO THE STANDARDS	
TECHNICAL SPECIFICATIONS	
NOISE CONDITIONS	
UNPACKING	
MACHINE IDENTIFICATION	
ASSEMBLY	.14
WORKBENCH ASSEMBLY (Fig. 3, 4 and 5)	. 14
ASSEMBLY AND ADJUSTMENT	. 15
SAW BLADE TENSION (Fig. 1 - 6)	. 15
SAW BLADE ADJUSTMENT	. 15
UPPER SAW BLADE GUIDE ADJUSTMENT	. 16
LOWER SAW BLADE ADJUSTMENT:	. 16
ADJUSTMENT OF UPPER BLADE GUIDE'S HEIGHT (Fig.11):	. 17
RIGHT-ANGLE WORKBENCH ADJUSTMENT (Fig.12 and 13):	. 17
WORKBENCH ANGLE (Fig. 14A):	. 18
CONNECTION TO A DUST COLLECTION DEVICE	. 18
OPERATION	. 18
ON / OFF SWITCH	. 18
PLACING THE RIP FENCE	. 19
CUTTING OPERATION	. 20
MAINTENANCE	. 21
SAW BLADE REPLACEMENT (Fig.1 and 17):	. 21
WHEELS' RUBBER COATINGS REPLACEMENT (Fig.18):	. 21
WORKBENCH INSERT REPLACEMENT (Fig.19):	. 21
MACHINE CLEANING	. 22
NDSAW ARRANGEMENT	. 22
MALFUNCTIONS	. 23
AFTER-SALES SERVICE	. 23



#### **SAFETY INSTRUCTIONS**



#### **WARNING:**

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND INJURY WHEN USING ELECTRICAL TOOLS, OPERATORS SHOULD ALWAYS OBSERVE BASIC SAFETY PRECAUTIONS AS WELL AS THE THOSE INDICATED IN THIS MANUAL.

## Read carefully all the instructions before use this product and keep them safe for future reference.

Operations carried out using a power tool can become dangerous for the operator if safe and adequate operating standards are not observed. As with any electrical machinery with moving parts, use of the tool entails certain risks. If the tool is used as indicated in this manual, with due concentration on the work being performed, in observance of safety regulations and wearing appropriate personal protective equipment, the risk of accidents and injury is almost inexistent. Possible residual risks include:

- 1. injury caused by contact with rotating parts
- 2. injury caused by saw blade breaking
- 3. injury caused by contact with sharp parts or when changing the blade
- 4. injury caused by flying parts of the tool or the material being handled
- 5. damage to hearing caused by noise
- 6. harm caused by dust
- 7. injury caused by incorrectly installed tools

The safety equipment envisaged on tools, such as guards, casings, workpiece pusher, clamping devices and personal protective equipment such as goggles, dust masks, ear defenders, safety footwear and gloves can help reduce the risk of injury. However, not even the best safeguards can protect against a lack of common sense or failure to operate with due care and attention. Always use your common sense and take all necessary precautions. Only perform operations which you are sure are safe. DO NOT FORGET: safety is everyone's responsibility. This tool has been designed for a specific use. We urge you not to modify it or use it for any purpose other than those for which it was specifically designed and built. In the event of any doubt concerning specific applications, DO NOT use the tool until you have contacted us and received the necessary clarification.

#### **READ AND KEEP THIS MANUAL**

#### PERSONNEL AUTHORIZED TO USE THE MACHINE

This machine has been designed and manufactured to be used by qualified personnel with adequate training, experience and skills. Below you will find a list of basic requirements:

#### **Operators / Trainees / Apprentices:**

- may be male or female
- must be aged 14 or over
- must have full use of both hands
- must have no physical or mental disabilities
- must know and fully understand the contents of the user manual.



#### **GENERAL SAFETY INSTRUCTIONS**

- 1. **Keep the work surface clean.** If the work area or surface is busy the probability of injuries is higher.
- Do not use the machine in dangerous environment conditions. In order to prevent electric shock, do not
  expose the tools to rain and do not use it in a damp area. Keep the work area illuminated. Do not use the
  machine near gas or inflammable substances.
- 3. **Connect** the dust collection device. If the machine is equipped with a dust collection device, make sure that this system is connected and correctly used.
- 4. **Keep** unknown persons and children away from the machine. All unknown persons and children must keep a safe distance from the work area.
- 5. **Protect** yourself from electric shock. Avoid any contact with earthing surfaces.
- 6. **Handle** the power supply cable with care. **Do not pull** the electric cable to disconnect it from the plug. Keep the electric cable away from heat, oil and sharp edges.
- 7. **Use extension cables** designed for outdoor use. When using the machine outdoors, use only extension cables suitable for outdoor use, having specific indications.
- 8. **Be vigilant**. Check carefully what you are doing, have good sense. Do not use the machine if you are tired.
- 9. **Do not use** the machine if you have taken medicines, alcohol, drugs.
- 10. **Avoid** accidental starts. Be sure that the switch is on the OFF position before inserting the plug into the socket.
- 11. **Wear suitable clothing**. Do not wear loose-sleeved garments or pieces of jewellery which may get caught in the moving parts. For outdoor use we recommend non-slip shoes. If necessary, use headgear to cover hair.
- 12. **Always use personal protection devices:** wear protective goggles and masks in case dust or sawdust is produced. Wear ear muffs or plugs in noisy areas. Wear gloves when handling parts with sharp edges.
- 13. Do not be off balance over the machine. Always keep firmly stand
- 14. **Ask** for advices to skilled and qualified people if you are not familiar with using such a machine.
- 15. **Move away** from the workbench the tools you do not use. If you do not use the tools, you must arrange them in a dry area which is locked and away from the reach of children.
- 16. **Do not force** the machine. You can obtain better and safer results if you use the machine at the cutting pressure for which it has been designed.
- 17. Use the suitable tool for the work you are processing. Do not use a small tool for an intensive job.
- 18. Block the piece. If possible, use C-clamps or a holder to fix the piece. It is safer than using only your hands.
- 19. **Keep** the tools in perfect conditions. Keep the tools sharp and clean to obtain better and safer results. Follow the instructions to grease and change the accessories. Check regularly the electric cable and replace it if it is damaged. Keep the handles and the handgrips dry, clean, unoiled and ungreased.
- 20. **Disconnect** the tool from electricity if you do not use it, before maintenance and substitution of the accessories or tools such as blades, drills, mills, etc.
- 21. **Move away** from the workbench locking and adjustment wrenches. Get used to check if the locking and adjustment wrenches have been removed before switching it on.
- 22. **Check** the parts of the tool to verify that there are not any damaged components. Before using the machine, check if safety devices or any other parts are damaged in order to be sure that it works properly and that it can accomplish the task for which it has been designed. Check that moving parts are aligned, do not stop and are not broken. Check the assembly and any other condition that can influence the functioning of the machine. Any damaged part or protection must be repaired or replaced by an authorised after sales centre. Do not use the machine if the switch does not work properly.
- 23. **Use** the machine, the tools and the accessories in the way and for the purposes mentioned in this manual. Different uses and parts can cause possible risks to the user.
- 24. **The machine must be repaired** by a qualified person. This electric tool is in compliance with local safety regulations. The machine must be repaired only by qualified people who use original spareparts, otherwise risks may arise for the user.



## ADDITIONAL SAFETY INSTRUCTIONS FOR BANDSAWS

- 1. **ALWAYS DISCONNECT** the bandsaw from the socket before any repair, maintenance or cleaning operation and while changing the saw blade.
- 2. **DO NOT USE** the bandsaw until it is not completely assembled or installed according to this instruction manual.
- 3. **START** the bandsaw only after removing any object (tools, waste material, etc.) from the workbench.
- 4. **NEVER START** the bandsaw when the blade is in contact with the workpiece.
- 5. **ADJUST** the upper guide the nearest to the workpiece to be cut.
- 6. **CHECK** that saw blade guides and saw blade support bearings are correctly adjusted.
- 7. **ENSURE** that saw blade is correctly tightened and set it in order that teeth point downwards.
- 8. **CHECK** that size and saw blade type are suitable to the work you must carry out.
- 9. **DO NOT TRY** to cut a piece which has not at least one plane surface if you do not have a suitable support.
- 10. **PRESS** the piece firmly to the bench and move it forward at a moderate speed.
- 11. **STOP** the machine if it rejects the workpiece before it is completely cut.
- 12. **STOP** the bandsaw to remove stuck pieces or waste material on the workbench.
- 13. **DO NOT CUT** too small pieces that cannot be safely blocked.
- 14. CARRY OUT lightening cuts on the piece when you must do curved cuts.
- 15. **NEVER CARRY OUT** any preparation, assembly or adjustment operations on the workbench when the bandsaw is switched on.
- 16. **ALWAYS KEEP** your hands and fingers far from the blade.
- 17. ALWAYS WEAR protective goggles.
- 18. AVOID uncomfortable positions in which your hands risk to slide or get in touch with the blade.
- 19. **DISCONNECT** the machine, clean the workbench and lower the upper saw blade protection before leaving from the machine. In case of long periods of inactivity loosen saw blade's tension.
- 20. **REPLACE** missing or damaged parts. Do not use the bandsaw if its parts do not perfectly work.
- 21. **REGULARLY CHECK** if the supply cable is damaged, in that case get it repaired by an authorised after-sales centre. Check regularly the extension cables and replace them if they are damaged.

#### **ENVIRONMENTAL PROTECTION**

## **INFORMATION FOR USERS**

"Implementation of Directives 2011/65/UE, 2012/19/UE, relative to reducing the use of hazardous substances in electric and electronic appliances and the disposal of waste", please take note of the following:

- The crossed out wheelie bin symbol found on the appliance or the packaging indicates that the product must be disposed separately from ordinary household waste when it reaches the end of its working life.
- The user must consign the unwanted appliance to an authorised waste disposal centre for electric and electronic goods, or alternatively, hand it over to the relative dealer at the moment of purchasing a new appliance of the same type on a basis of a one to one ratio.
- Differentiated disposal to enable possible recycling or environmentally compatible elimination of the appliance, helps to limit undesirable effects on health and environment and promotes the reuse and/or recycling of the materials that compose the appliance.



#### WARNING!

IN ACCORDANCE WITH THE RELATIVE LEGISLATION IN FORCE IN THE COUNTRY OF USE, SANCTIONS WILL BE IMPOSED ON THE USER IF THE APPLIANCE IS DISPOSED OF ILLEGALLY.





## **SYMBOLS**

The following symbols can appear on your machine or in this instruction manual. Their meanings are specified below:



Always wear protective goggles in order to avoid any jumping pieces during use.



Read and understand this user manual before starting to use the machine.



Always wear a protective mask if the work operation produces dust.



Always wear ear protections to protect yourselves from excessive noise during use.



Product in compliance with relative CE regulations.



Serial number / Year of construction

F XXXXX08XXXXXXX

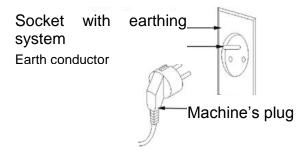


#### **ELECTRICAL CONNECTIONS**

## **ELECTRICAL CONNECTIONS**

To supply current to your machine a 230 V 50 Hz alternate voltage equipped with a earthing conductor is necessary. Ensure that your power supply corresponds to these features, that it is protected by a differential and magnetothermal switch, and that earthing system is efficient. If your machine does not work when connected to a socket, check carefully power supply features.

### **EARTHING INSTRUCTIONS**



In the event of a tool functioning fault or short circuit, the earth connection provides the path of least resistance for the electrical current and reduces the risk of electrical discharge. This tool is fitted with an electric cable which includes an earth conductor and a plug with a protective earth contact. The plug must be connected to a correctly installed socket and earthed in compliance with local standards and regulations.

Be sure that your earthing system is in good conditions and that your plug is protected by a differential and magnetothermal switch.

Do not modify the plug supplied on the tool. If it does not fit into the socket, have a suitable socket installed by a qualified electrician. A faulty connection of tool's earth conductor can lead to the risk of electric discharge. The earth conductor has a green (with or without yellow stripe) insulating sheath to distinguish it from the others. Should the power cable ever need repairing or replacing, do not connect the earth conductor to a live terminal.

If you fail to fully comprehend or have any doubts whatsoever concerning the earthing instructions, contact a qualified electrician or maintenance technician.

If the power cable is damaged, it must be replaced by an authorized assistance centre or qualified personnel. Never switch the tool on if the power cable is damaged.

This tool is provided with a plug which must connected to a suitable socket.



#### **EXTENSION LEADS**

Only use three conductors extension cables, with a plug with two pins and a earthing contact, and sockets with two holes and a earth corresponding to tool's plug. When using an electric tool at a remarkable distance from the power supply, use an extension lead with adequate size to transport the necessary current to the tool. If the extension lead has not a sufficient size a voltage drop can occur, causing a power loss and thus motor overheating. Only use extension leads in compliance with CE standards.

Extension lead length: up to 15 m

Cable size: 3 x 2,5 mm<sup>2</sup>

Before using any kind of extension lead, check that it has not bare wires and that insulation is not cut or worn. Repair and change immediately it if it is damaged or worn.



#### **WARNING:**

EXTENSION LEADS MUST BE ARRANGED AWAY FROM THE WORKING AREA IN ORDER THAT THEY DO NOT COME IN CONTACT WITH THE WORKPIECES, THE TOOL OR OTHER PARTS OF THE MACHINE, THUS CREATING POSSIBLE RISKS.



#### **WARNING:**

KEEP THE TOOLS AND THE EQUIPMENT AT A SAFE DISTANCE FROM CHILDREN

#### USE COMPLIANT TO THE STANDARDS

This bandsaw has been designed for cross cutting and trimming wood and similar materials.

Maximum cutting height is 80 mm with the workbench placed at 0°.

The workbench can be tilted up to 45° to angle cut.

Round pieces must be cut only by using an adequate blocking device, and transversally to the longitudinal axis, given that they could be rotated by the blade.

In case of cutting an angle on plane pieces, you must use a bloking square in order to guide the piece in a safe way. Any other use is considered contrary to the prescriptions.

#### TECHNICAL SPECIFICATIONS

Motor powers	250 W
Motor power:	250 ۷۷
voltage and frequency:	230 V – 50 HZ
IP protection:	IP 40
Blade rotational speed:	900 m/min
Saw blade lenght:	1400 mm
Maximum saw blade width:	
Goose neck:	
Maximum cutting height at 90°:	80 mm
Maximum cutting height at 45°:	40 mm
Workbench angle:	from 0° to 45°
Workbench size:	300 × 300 mm
Maximum workpiece size:	400 × 400
Maximum workpiece size: Machine size:	720× 350 × 275 mm
Net weight:	



#### **NOISE CONDITIONS**

The noise emitted, measured in conformity with standards EN61029, EN3744 and EN11201 is:

- Sound pressure level LpA	. 77.4	dB(A)
- Sound power level LWA	90,4	dB(A)
- Uncertainty of measurement K		3 dB

#### We recommend you to use ear protection devices.

Bandsaw noise sources are: the electric motor and its ventilation system, the belt speed reducer, the blade and the material to be cut.

As far as motor is concerned, take care to inspect it and its ventilation system on a regular basis, making sure that aspiration inlets are clean. Regarding the reducer, check the condition and the tension of the belt. Keep the blade in effecient conditions, use the suitable blade according to the material to be cut, and always keep the workpiece correctly blocked.

Noise levels are emission levels and do not necessarily indicate safe working conditions. Even if there is a connection between emission levels and exposure levels, the first ones cannot be used to determine safely if other precautions are necessary. Factors that can influence actual exposure level of the user include exposure length, environmental features and other noise sources, as for example the number of machines and operations in the surrounding area. Besides, exposure levels can change from country to country. However, these instructions enable the user of the machine to better evaluate dangers and risks.

#### **UNPACKING**

Your bandsaw is delivered complete of all parts into a box. Unpack it with care, check if there are any missing or damaged parts.

If you find any faulty or damaged parts do not use them in order not to endanger the efficiency and the safety of the tool. Contact an after sales centre to replace faulty parts.

In order that the bandsaw perfectly works you must assemble various parts, for which you can find a detailed explanation in the following paragraphs.

We recommend you to read the assembly instructions carefully and to follow them to the letter.

Remove the protective coating of the worked surfaces with a cloth and a cleansing, as for example WD40; do not use acetone, petrol or paint thinners.

List of parts included in the package:

- A bandsaw complete with blade (assembled)
- A workbench
- A rip fence
- A push-stick



## **MACHINE IDENTIFICATION**

- 1. ON / OFF switch
- 2. Electric cable
- 3. Rubber coating
- Saw blade stop
- 5. Machine basement
- 6. Dust collection outlet
- 7. Lower saw blade wheel
- 8. Upper saw blade wheel
- 9. Saw blade tension adjustment knob
- 10. Upper saw blade protection
- 11. Upper blade guide
- 12. Door
- 13. Door fastening
- 14. Upper saw blade wheel blocking
- 15. Workbench
- 16. Worbench angle indicator
- 17. Workbench insert
- 18. Workbench angle locking lever
- 19. Saw blade guide adjustment knob
- 20. Saw blade guide locking knob
- 21. Rip fence locking lever
- 22. Upper saw blade wheel adjustment knob
- 23. Motor
- 24. Rip fence
- 25. Machine frame
- 26. Bandsaw saw blade

#### **ASSEMBLY**

## WORKBENCH ASSEMBLY (Fig. 3, 4 and 5)

- a. Remove saw blade stop (4) Fig.3.
- b. Place the workbench (15) Fig.1 on the frame of the machine (25) Fig.2, and fix it with 3 screw (27) as showed in Fig.4. Place the saw blade (26) Fig.2 in order that is is exactly at the centre of the workbench.
- c. Put the saw blade stop in its position (4) Fig.2.
- d. Assemble the workbench insert (17) Fig.5 in order that the hole is aligned to the workbench slot.
- e. To disassemble the workbench, follow the instructions of this paragraph in reverse order.



#### ASSEMBLY AND ADJUSTMENT

#### SAW BLADE TENSION (Fig. 1 - 6)



#### **WARNING:**

IF YOU DON'T USE THE BANDSAW FOR A LONG PERIOD, LOOSEN THE SAW BLADE. REMEMBER TO CHECK SAW BLADE TENSION BEFORE USING THE MACHINE AGAIN.



#### **WARNING:**

IF SAW BLADE TENSION IS TOO TIGHTENED, IT CAN BREAK, WHILE IF IT IS TOO LOOSEN, THE SAW BLADE CAN DROP OFF THE WHEEL AND STOP.



Note: Saw blade tensioning must be adjusted according to the different width of the blades, in order to obtain a correct centering, a good performance and a suitable lifetime.

- a. Disconnnect the machine.
- **b.** In order to check saw blade tension (26) Fig.2, push the saw blade sideways, in the middle betweek the workbench and the upper blade guide (11) Fig.1: the blade mustn't move more than 1-2 mm.

If necessary, correct saw blade tension:

- by turning saw blade tension adjustment knob (9) Fig.1 clockwise to tighten saw blade.
- by turning saw blade tension adjustment knob (9) Fig.1 anti-clockwise to loosen saw blade.

#### SAW BLADE ADJUSTMENT



#### **WARNING:**

BEFORE SAW BLADE ADJUSTMENT, MAKE SURE THAT SAW BLADE TENSION IS CORRECT.

- a. Open the door (12) Fig.1 by turning the fasteners (13) Fig.1. with a suitable screwdriver.
- **b.** Turn slowly the upper saw blade wheel (8) Fig.1 clockwise. The blade must rotate in the middle of upper and lower wheel rubber coatings (3) Fig.1. When the blade is not centered in the rubber coatings, saw blade wheels angle must be adjusted. Knob (22) Fig.2 allows to modify upper wheel angle. By modifying wheel angle, the blade rotates in the middle of wheel rubber coatings:
  - Rotate knob (22) Fig.2 clockwise to move the saw blade backwards.
  - Rotate knob (22) Fig.2 anticlockwise to move the saw blade forward.

It is necessary to rotate upper wheel repeatedly in order that upper wheel (8) Fig.1 adjustment makes the saw blade change its position in the lower wheel (7) Fig.1.

After finishing this operation, lock the adjustment of upper wheel (8) Fig.1 angle by tightening the plastic locking lever (14) Fig.2 located on the adjustment knob (22) Fig.2. Then, close the doors (12) Fig.1 by locking the fastneres (13) Fig.1.



### UPPER SAW BLADE GUIDE ADJUSTMENT

Upper saw blade guide is composed of :

- a support bearing (30) Fig.7 (which support the blade from the back),
- two wheels (28) Fig.7 (which guide the blade sideways).

The support bearing and the side wheels must be adjusted each time the blade is replaced or adjusted.



Note: Check regularly if the wheels are worn out, and if necessary, replace them both at the same moment.

Loosen screw (33) Fig.7 to free support bearing (30) Fig.7 in order that there is a gap of maximum 0,5 mm between it and the saw blade.

- a. Tighten screw (33) Fig.7.
- **b.** Loosen hex head screw (35) Fig.8.
- c. Move the part (36) Fig.8 in order that the wheels (28) Fig.7 are about 1 mm behind teeth's base.
- d. Tighten firmly screw (35) Fig.8.
- e. Loosen hex head screws (37) Fig.7.
- **f.** Push the two wheels (28) Fig.7 in the direction of the saw blade until they come in contact with the saw blade (saw blade musn't get stuck).
- g. Tighten hex head screws (37) Fig.7.
- **h.** Make the upper wheel (8) Fig.1 rotate clockwise by hand in order to place the wheels correctly (they must touch lightly the saw blade).

#### LOWER SAW BLADE ADJUSTMENT:

Lower saw blade guide is composed of :

- a support bearing (31) Fig.9 (which support the blade from the back),
- two wheels (29) Fig.10 (which guide the blade sideways).

The support bearing and the side wheels must be adjusted each time the blade is replaced or adjusted.



Note: Check regularly if the wheels are worn out, and if necessary, replace them both at the same moment.

- a. Disassemble the workbench (15) Fig.1.
- **b.** Move the saw blade protection (34) Fig.9 backwards.
- **c.** Lower support bearing adjustment can be carried out by following the same instructions regarding upper support bearing adjustment.



The two support bearings (30) Fig.7 and (31) Fig.9 support the saw blade (26) Fig.1 only during cutting operations. When the machine works in no-load condition, the saw blade mustn't touch the ball bearings.

- d. Loosen hex head screw (40) Fig.9
- **e.** Move the part (49) Fig. 9 in order that the wheels (29) Fig.10 are about 1 mm behind teeth's base. Tighten firmly screw (40) Fig.9.
- f. Loosen hex head screws (38) Fig.10.
- **g.** Push the two wheels (29) Fig.10 in the direction of the saw blade until they come in contact with the saw blade (saw blade musn't get stuck).
- h. Tighten hex head screws (38) Fig.10.
- i. Make the upper wheel (7) Fig.1 rotate clockwise by hand in order to place the wheels correctly (they must touch lightly the saw blade).
- j. After finishing adjustment operations, close the saw blade protection (34) Fig.9.



#### **WARNING:**

AFTER CARRYING OUT ALL ADJUSTMENT OPERATIONS, TAKE CARE OF CLOSING THE DOORS CORRECTLY AND LOCK THE FASTENERS. DURING USE, THE TWO DOORS MUST BE CLOSED. IT IS FORBIDDEN TO USE THE MACHINE IF THE DOORS ARE OPEN.

## ADJUSTMENT OF UPPER BLADE GUIDE'S HEIGHT (Fig.11):

Upper blade guide's (11) Fig.1 height must be adjusted:

- after any cutting operation, in order that it is suitable for workpiece height (during cutting, upper blade guide position must be about 3 mm over the workpiece):
- after saw blade or workbench adjustment (for example after saw blade replacing or tension operation, or after workbench adjustment).
- a. Loosen saw blade guide locking knob (20) Fig.2.
- **b.** Turn saw blade guide adjustment knob (19) Fig.2 and lower saw blade guide (11) Fig.1 the nearest to the workpiece, in order that there is a gap of about 2-3 mm between it and the workpiece.
- **c.** Tighten saw blade guide locking knob (20) Fig.2.



## **WARNING:**

BEFORE ADJUSTING UPPER BLADE GUIDE, DISCONNECT THE MACHINE AND WAIT FOR THE SAW BLADE TO STOP COMPLETELY.

## RIGHT-ANGLE WORKBENCH ADJUSTMENT (Fig.12 and 13):

Cut is perfectly perpendicular if workbench surface is perpendicular to the saw blade. To obtain this adjustment, proceed as follows:

- **a.** Raise upper blade guide (11) Fig.12.
- **b.** Loosen workbench angle locking lever (18) Fig.2.
- c. Place a square (not provided) between the saw blade (26) Fig.2 and the workbench (15) Fig.1.
- d. Angle the workbench (15) Fig.1 by turning the adjustment wheel (19) Fig.2 until it is placed at 90° with the saw blade.
- e. Tighten workbench angle locking lever (18) Fig.2.
- **f.** After placing the workbench at right angle with the saw blade, loosen the nut (42) Fig.13, then adjust the hex head screw (41) Fig.13 until the head of the screw touches machine's support.
- **g.** Tighten the nut (42) Fig.13 to fix the hex head screw (41) Fig.13.



#### **WORKBENCH ANGLE (Fig. 14A):**

Workbench can be angled up to 45° to perform angle cuts. To tilt it, proceed as follows:

Loosen workbench angle locking lever (18) Fig.2.

- **a.** Tilt the workbench according to the angle you need. To this aim, use the workbench angle indicator (16) Fig.2.
- **b.** Then, tighten workbench locking lever (18) Fig.2.



#### **WARNING:**

IF THE WORKBENCH IS TILTED, ENSURE THAT RIP FENCE IS ON THE RIGHT SIDE OF THE SAW BLADE, SO AS TO PREVENT THE WORKPIECE FROM FALLING DOWN.

### **CONNECTION TO A DUST COLLECTION DEVICE**



#### **WARNING:**

INHALATION OF DUST OF CERTAIN TYPES OF WOOD, AS FOR EXAMPLE OAK, BEECH OR ASH-TREE CAN ENDANGER HUMAN HEALTH. WE RECOMMEND YOU TO WORK OUTDOORS, TO USE AN EFFICIENT DUST COLLECTION DEVICE (AIR SPEED MUST BE 20 M/S INSIDE ASPIRATION INLETS).



#### **WARNING:**

WORKING WITHOUT USING A DUST COLLECTION DEVICE IS POSSIBLE ONLY:

- OUTDOORS
- FOR WORKS INVOLVING A SHORT PERIOD OF TIME (UP TO 30 MINUTES)
- WEARING A DUST-MASK

IF YOU WORK WITHOUT USING A DUST COLLECTION DEVICE, DUST PILES UP AND MUST PERIDICALLY REMOVED.

Connect the dust collection device to the dust collection outlet (6) Fig.2, and if necessary use a compatible adapter.

#### **OPERATION**



#### **WARNING:**

CONNECT TO THE POWER SUPPLY AND START THE BANDSAW ONLY AFTER CHECKING THAT THE MACHINE IS FASTENED, THAT THE WORKBENCH IS ASSEMBLED AND ADJUSTED, THAT SAW BLADE TENSION IS CORRECT AND THAT ALL SAFETY AND PROTECTION DEVICES ARE PERFECTLY EFFICIENT. OTHERWISE, THE BANDSAW COULD START SUDDENLY AND CAUSE SERIOUS INJURIES.

## ON / OFF SWITCH

- Start = push the green button (g) Fig.14B.
- Stop = push the red button (h) Fig.14B of the bandsaw.

In case of power failure, the tool is stopped by a "minimum voltage" relay inside the switch. This prevents the machine from starting when the electric energy recovers. Press the green button to re-start the bandsaw.



#### PLACING THE RIP FENCE

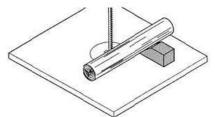
- **a.** Rip fence (24) Fig.15 can be assembled both on the right side and on the left side of the saw blade (26). Make it slide on the workbench, and adjust it according to the measurement you need.
- **b.** Push the locking lever (21) Fig.15 downwards to lock the rip fence (24) Fig.15.
- c. If the rip fence is not locked enough, turn knob (21) Fig.15 clockwise until the rip fence is correctly blocked.
- d. Ensure that rip fence (24) Fig.15 is always parallel to the saw blade (26) Fig.15.
- e. To unlock the rip fence (24) Fig.15, raise the locking lever (21) Fig.15.



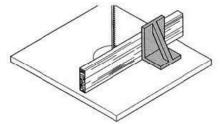
#### WARNING!

To reduce the risk of injuries, always respect the following safety regulations during any kind of operation:

- use personal safety equipment;
- saw only one piece at a time;
- when cross cutting, always press the workpiece against the workbench;
- do not brake the saw blade by exerting a lateral pressure on it;
- according to your needs, for all kind of works always use:
- + a pusher if the distance between the rip fence and the saw blade is less than or equal to 120 mm;
- + a support surface for long pieces, in case they risk to fall down after being cut;
- + A DUST COLLECTION DEVICE;
- + IF YOU NEED TO CUT A ROUND WORKPIECE, A SUITABLE LOCKING DEVICE, IN ORDER THAT THE PIECE CANNOT ROTATE CROSSWISE:



+ IF YOU HAVE TO CUT A PLANE WORKPIECE ON ITS ANGLE, A SQUARE EQUIPPED WITH A SUITABLE STOPS TO PREVENT THE PIECE FROM FALLING DOWN.



Before starting to work, check the perfect conditions of:

- bandsaw saw blade:
- saw blade protection.

If necessary, replace immediately the damaged pieces.

Maintain a correct working position when using the machine (saw blade's teeth must point towards the user and downwards).

Do not cut more than one piece at a time. Do not pile the workpieces to cut them. If they get caught by the blade uncontrollably they may involve risks for the user.

Never cut pieces fastened with ropes, strings, cables or wires, or containing these materials.



#### **CUTTING OPERATION**



#### **WARNING:**

AFTER ANY KIND OF ADJUSTMENT, A SHEAR TEST IS RECOMMENDED.

- a. If necessary, adjust workbench angle.
- **b.** Place the rip fence according to the cut you need.
- c. Place and block the upper blade guide 3 mm over the workpiece.



Note: Before cutting the workpiece, make a shear test, and if necessary correct the adjustment.

- a. Place the workpiece on the workbench.
- **b.** Connect the plug.
- c. Switch on the bandsaw.
- **d.** Begin to cut one piece at a time. Always guide the workpiece with both hands by keeping it against the workbench, in order to avoid that the saw blade get stuck. Move the piece forward using a pressure level which must be constant and just sufficient for the blade to cut the workpiece without getting stuck.
- e. Switch off the machine if you don't need to use it immediately, and disconnect it.



## **WARNING:**

ALWAYS USE THE PUSH-STICK IF YOU CUT SMALL WORKPIECE. PUSH-STICK (28) FIG.16 MUST ALWAYS BE AT HAND AND FIXED TO THE HANGER (29) FIG.16 DESIGNED FOR THIS AIM.



## **MAINTENANCE**



#### **WARNING:**

BEFORE ANY MAINTENANCE OR CLEANING OPERATION:

- SWITCH OFF THE MACHINES:
- WAIT UNTIL THE SAW BLADE IS STILL;
- DISCONNECT THE PLUG FROM THE POWER SUPPLY.

#### **SAW BLADE REPLACEMENT (Fig.1 and 17):**



#### **WARNING:**

EVEN IF THE SAW BLADE IS STILL IT IS POSSIBLE TO CUT ONESELF. WHEN YOU CHANGE THE SAW BLADE, WEAR GLOVES. USE ONLY SUITABLE BLADES.

- a. Open the two bandsaw doors (12) Fig.1.
- **b.** Lower the upper blade guide (11) Fig.1 as much as possible.
- c. Remove the saw blade stop (4) Fig.2.
- **d.** Turn saw blade tension knob (9) Fig.1 anticlockwise to loosen the blade.
- **e.** Remove bandsaw saw blade (26) Fig.2 from lower wheel (7) Fig.1 and upper wheel (8) Fig.1 and make it slide across the slot of the workbench, the saw blade protection (at the level of the upper blade guide), and the upper blade guide.
- **f.** Put a new blade in the bandsaw. Pay attention on how to arrange it: teeth must be oriented towards the front side of the bandsaw (doors side).
- g. Place the blade in the middle of rubber coatings (3) Fig.1 of the two wheels (7) Fig.1 and (8) Fig.1.
- h. Turn the saw blade tension adjustment knob (9) Fig.1 clockwise to tighten the blade.
- i. Close the two bandsaw doors (12) Fig.1.
- i. Place the saw blade stop in its position (4).
- k. Then:
  - adjust bandsaw saw blade if necessary:
  - adjust saw blade guides;
  - let the saw blade turn for a at least a minute;
  - switch off the tool, remove the plug from the socket and check the adjustment.

#### WHEELS' RUBBER COATINGS REPLACEMENT (Fig.18):

Check regularly if the rubber coatings (3) Fig.18 and if necessary replace them at the same moment:

- **a.** remove the saw blade from the bandsaw (check previously);
- **b.** make a small screwdriver slide under the coatings and remove them;
- c. place the new rubber coatings and re-assemble the saw blade.

## **WORKBENCH INSERT REPLACEMENT (Fig.19):**

Workbench insert must be replaced when the slot through which the saw blade passes is damaged.

- a. Disassemble workbench (15) Fig.1;
- **b.** Remove workbench insert (17) Fig.19 from the workbench by pushing it from below;
- **c.** Insert a new workbench insert, the assembly of the new workbench insert must be done following the instructions of this paragraph in reverse order.



#### **MACHINE CLEANING**

1. Open bandsaw doors (12) Fig.1.

Remove the saw dust using a dust collector or pincers:

- inside the lower part of the carter;
- inside blade guides;
- on the control elements.
- 2. Close bandsaw doors (12) Fig.1.

Do not use thinners to clean plastic parts. The majority of plastic materials risk to be damaged by thinners available on the market. Use a clean cloth to remove waste, dust, etc.

- After any maintenance of cleaning operation, check that the all safety devices work correctly.
- Replace damaged pieces, in particular safety devices, with original spare parts, given that spare parts which aren't checked and approved by the manufacturer can cause unforeseen damages.
- Any maintenance or repairing operation different from the ones described in this paragraph must be carried out only by qualified personnel.

## **NDSAW ARRANGEMENT**



#### **WARNING:**

KEEP THE MACHINE IN A SUITABLE WAY IN ORDER THAT:

- IT CAN'T BE SWITCHED ON BY UNAUTHORIZED PEOPLE;
- NOBODY CAN GET HURT WHEN THE MACHINE IS STILL.



#### **WARNING:**

DO NOT KEEP THE MACHINE OUTDOORS WITHOUT PROTECTION, OR IN A HUMID PLACE.



## **MALFUNCTIONS**



#### DANGER:

Before any operation after a malfunction has occurred:

- Switch off the machine.
- Remove the plug from the socket.
- Wait until bandsaw saw blade is still.

After any operation, put all safety devices into service and check them.

PROBLEMS	CAUSES	SOLUTIONS SUGGESTED	
The engine does not work	A possible tension reduction has made the minimum voltage relay start.  Motor overheating, due for example to a smoothed blade or to accumulation of saw dust inside the carter:	There is not any supply voltage: - Check the cable, the socket and the switch.  Find a remedy to the cause of overheating, let	
Bandsaw saw blade moves away from the cutting line or decentralizes itself	Bandsaw saw blade is not	Modify upper wheel angle.	
Bandsaw saw blade has broken	Saw blade tension is unsuitable:	<ul><li>Adjust saw blade's tension.</li><li>Cutting pressure is too high:</li><li>Reduce the pressure applied to the saw blade.</li></ul>	
	Bandsaw saw blade is unsuitable:	<ul> <li>Replace bandsaw saw blade:</li> <li>If you must cut a thin workpiece, you must use a thin saw blade.</li> <li>If you must cut a wide workpiece, you must use a wide saw blade.</li> </ul>	
The saw blade is misshapen	Cutting pressure is too high:	Avoid to extert a lateral pressure on the bandsaw saw blade.	
During work, the bandsaw stops	Cutting pressure is too high:	<ul><li>Reduce the pressure you are exerting on the workpiece.</li><li>Check saw blade sharpness and features.</li></ul>	
Strong bandsaw vibrations:	Insufficient fastening:	Firmly fasten the bandsaw to a suitable ground.	
	The workbench is loose:	Place the workbench and fix it.	
	Motor fixing is loose:	Check lock screws and tighten them if necessary.	
Aspiration coupling is obstructed	No dust collection device is connected or aspiration duct is too small.		

## **AFTER-SALES SERVICE**

All tools and accessories are made and checked by using the safest and most modern productive methods. However, if despite these attentions a tool gets damaged, it must be repaired by a Femi authorised after sales centre.

You can send a request to the e-mail address info@fox-machines.com.

## **DECLARATION OF CONFORMITY**

#### **EN - DECLARATION OF CONFORMITY**

in accordance with EU Directive 2006/42/EC, Annex II, Part A

## **FEMI SpA**

Via del Lavoro, 4 40023 Castel Guelfo - (BO) ITALY hereby declares that the machine:

## **VERTICAL BANDSAW Art: F28-182A**

manufactured in: (see label)

conforms to the provisions of Machinery Directive 2006/42/EC and all provisions of implementation.

furthermore it also conforms to the following provisions and relative implementation; 2006/95/EC, 2004/108/EC, 2011/65/UE,2012/19/UE.

Persona autorizzata a costituire il fascicolo tecnico Person authorized to create the technical file Personne autorisée à établir le dossier technique Persona autorizada a crear el documento técnico Pessoa atorizada a constituir o fascículo técnico Teknisen tiedoston luonut henkilö:

MAURIZIO CASANOVA

INGOMBRO PER ETICHETTA

EN 61029-1/A11:2010,EN 61029-2-5:2011 EN 55014-1/A2:2011 EN 55014-2/A2:2009 EN 61000-3-2/A2:2009 EN 61000-3-3:2008

Castel Guelfo (BO) Italy 28/10/2015
Il Presidente del Consiglio

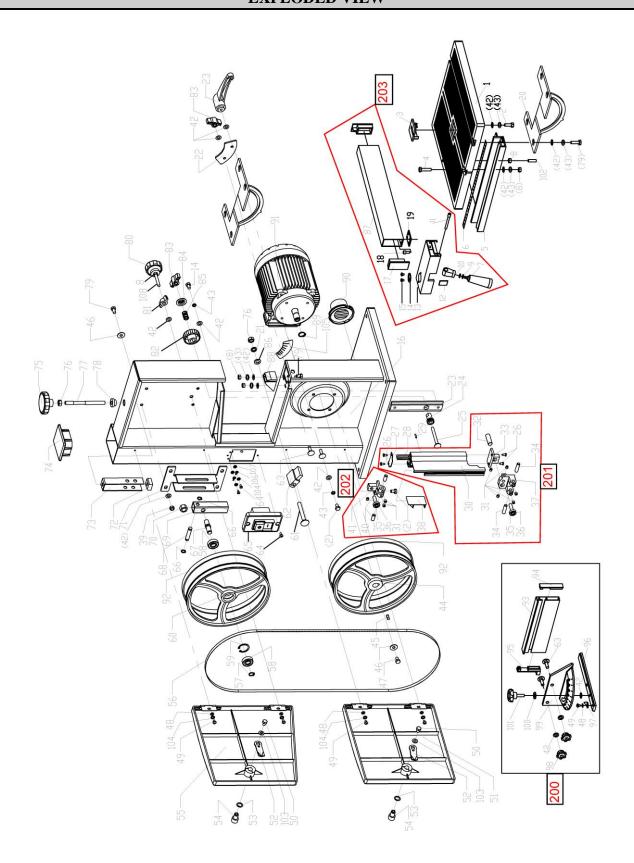
The Director / Le Directeur / El Director / O Director / Johtaja

FEMI S.p.A. Il Presidente del Consigno Mayrizio Casanova



## F28-182A

## EXPLODED VIEW





## F28-182A

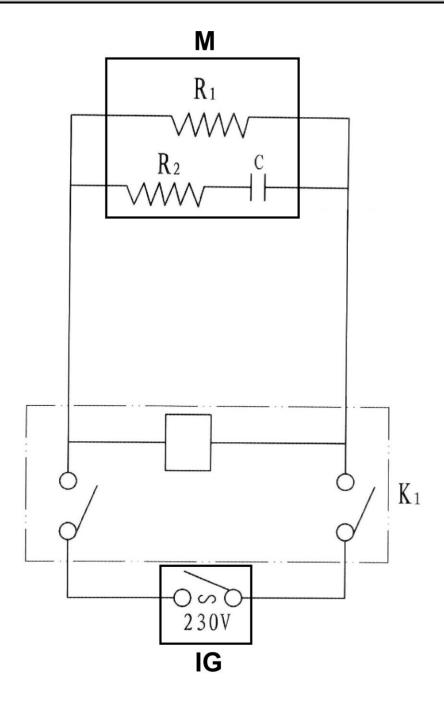
N.	Art. / Item
1	F28182A-1
2	F28182A-2
3	F28182A-3
4	F28182A-4
5	F28182A-5
6	F28182A-6
7	F28182A-7
8	F28182A-8
9	F28182A-9
10	F28182A-10
11	F28182A-11
12	F28182A-12
13	F28182A-13
14	F28182A-14
15	F28182A-15
16	F28182A-16
17	F28182A-17
18	F28182A-18
19	F28182A-19
20	F28182A-20
21	F28182A-21
22	F28182A-22
23	F28182A-23
24	F28182A-24
25	F28182A-25
26	F28182A-26
27	F28182A-27
28	F28182A-28
29	F28182A-29
30	F28182A-30
31	F28182A-31
32	F28182A-32
33	F28182A-33
34	F28182A-34
35	F28182A-35
36	F28182A-36
37	F28182A-37
38	F28182A-38
39	F28182A-39
40	F28182A-40
41	F28182A-41
42	F28182A-42
43	F28182A-43
44	F28182A-44
45	F28182A-45
46	F28182A-46
47	F28182A-47
48	F28182A-48
49	F28182A-49
50	F28182A-50
51	F28182A-51
52	F28182A-52
53	F28182A-53
54	F28182A-54

N.	Art. / Item
55	F28182A-55
56	
57	
58	F28182A-58
59	F28182A-59
60	F28182A-60
61	F28182A-61
62	F28182A-62
63	F28182A-63
64	F28182A-64
65	F28182A-65
66	F28182A-66
67	F28182A-67
68	F28182A-68
69	F28182A-69
70	F28182A-70
71	F28182A-71
72	F28182A-72
73	F28182A-73
74	F28182A-74
75	F28182A-75
76	F28182A-76
77	F28182A-77
78	F28182A-77
79	F28182A-79
80	F28182A-80
81	
81	
83	F28182A-83
84	F28182A-84
85	F28182A-85
86	F28182A-86
87	F28182A-87
88	F28182A-88
89	F28182A-89
90	F28182A-90
91	F28182A-91
92	F28182A-92
93	F28182A-93
94	F28182A-94
95	F28182A-95
96	F28182A-96
97	F28182A-97
98	F28182A-98
99	F28182A-99
100	F28182A-100
101	F28182A-101
102	F28182A-102
103	F28182A-103
104	F28182A-104
105	F28182A-105
106	F28182A-106
107	F28182A-107
107	F28182A-107
100	FZ010ZA-1U0

N.	Art. / Item
200	F28182A-200
201	F28182A-201
	F20102A-201
202	F28182A-202
203	F28182A-203

	N.	Art. / Item
)		7 37 37 37 37 37 37 37 37 37 37 37 37 37
) 1		
<u>2</u> 3		
3		
_		

## WIRING DIAGRAM



M: Motore, Motor, Moteur, Motor, Motor, Moottori IG: Interruttore generale magnetico, Magnetic main switch, Interrupteur général magnétique,Interruptor general magnético, Magneettinen kytkin K1: Micro interruptor, Microswitch, Microinterrupteur, Microinterruptor, Microinterruptor, Mykrokytin

