

2

MANUAL

EDILGRAPPA

SHEAR

F130N T30 230V

WITH ADJUSTABLE HEAD

USE AND MAINTENANCE INSTRUCTIONS

ELECTRIC SHEAR**AVAILABLE IN THE FOLLOWING VERSIONS:**

- **SINGLE-PHASE ELECTRIC MOTOR 230 V 50 Hz**

FIXED HEADS AVAILABLE	NAME OF MACHINE	P/N
SHEAR (CUTTING)	F130N T30 230V 50Hz WITH ADJUSTABLE HEAD	1.50.2598

CONTENTS

0 DESCRIPTION OF THE MACHINE	5
0.01 MACHINE COMPONENTS.....	5
0.02 SAFETY AND DANGER STICKERS - CE PLATE.....	6
0.03 LIST OF ACCESSORIES INCLUDED IN THE SUPPLY.....	7
1 TECHNICAL FEATURES	7
1.01 HYDRAULIC, MECHANICAL AND ELECTRICAL SPECIFICATIONS	7
2 DELIVERY, COMMISSIONING AND SET-UP	8
2.01 DELIVERY	8
2.02 ELECTRIC MOTOR.....	8
2.02.01 ELECTRICAL CONNECTIONS	8
2.02.02 COMMISSIONING	9
2.03 ACTUATION FLANGE (DOUBLE-ACTING)	9
2.04 EQUIPMENT OPERATION	10
2.04.01 STARTING	10
2.04.02 CUTTING	10
2.04.03 ADJUSTING THE HEAD	11
2.05 FORESEEN USE AND RESIDUAL RISKS	13
2.05.01 SAFETY DEVICES	13
3 ROUTINE MAINTENANCE	14
3.01 CHANGING AND TOPPING UP THE OIL	14
3.02 CHECKING SCREWS.....	16
3.03 CHECKING BLADES	17
3.04 HYDRAULIC COMPONENTS.....	17
3.04.01 MAX. PRESSURE VALVE INCORRECTLY ADJUSTED	17
3.05 ELECTRIC MOTOR.....	17
3.06 GREASING OF CENTRAL PIN	17
4 POTENTIAL PROBLEMS AND MEASURES TO BE ADOPTED	18
4.01 GENERAL.....	18
4.02 TROUBLESHOOTING THE MOTOR	18
4.03 TROUBLESHOOTING ON HYDRAULIC PARTS.....	19
5 STORAGE AND RESTARTING	20
5.01 STORAGE	20
5.01.01 ELECTRIC MOTOR.....	20
5.01.02 CYLINDER AND HYDRAULIC COMPONENTS	20
5.02 RESTARTING.....	20
6 MACHINE DISPOSAL	21

A brief legend indicating the most important symbols used in this manual is shown below.



THIS SYMBOL WARNS USERS TO PAY SPECIAL ATTENTION WHEN FOLLOWING THE RELATIVE INSTRUCTIONS. FAILURE TO OBSERVE THESE INSTRUCTIONS CAN CAUSE THE MACHINE TO OPERATE INCORRECTLY.



THIS SYMBOL INDICATES POSSIBLE HAZARDS, TAKE ALL PRECAUTIONS TO PREVENT THESE SITUATIONS FROM OCCURRING.



BEFORE WORKING ON THE MACHINE, CAREFULLY READ ALL THE INSTRUCTIONS, ESPECIALLY THOSE CONTAINED IN BOXES.

- “OPERATOR”:** A person suitably trained and authorised to operate, adjust, clean and transport the machine.
- “MAINTENANCE MAN”:** A person trained and authorised to perform routine maintenance on the machine and replace certain components.
- “MACHINE BODY”:** The equipment described in this manual.
- “ELECTRIC TOOL”:** Used in the safety precautions, it is a more general definition of the machine in question as it refers to mains-powered electric tools (with cable) or battery-powered electric tools (cordless).

0 DESCRIPTION OF THE MACHINE



CAUTION!! FIRST READ THE MANUAL REGARDING THE GENERAL AND SAFETY REGULATIONS!

0.01 MACHINE COMPONENTS

This machine is fitted with a single-phase alternating current motor.

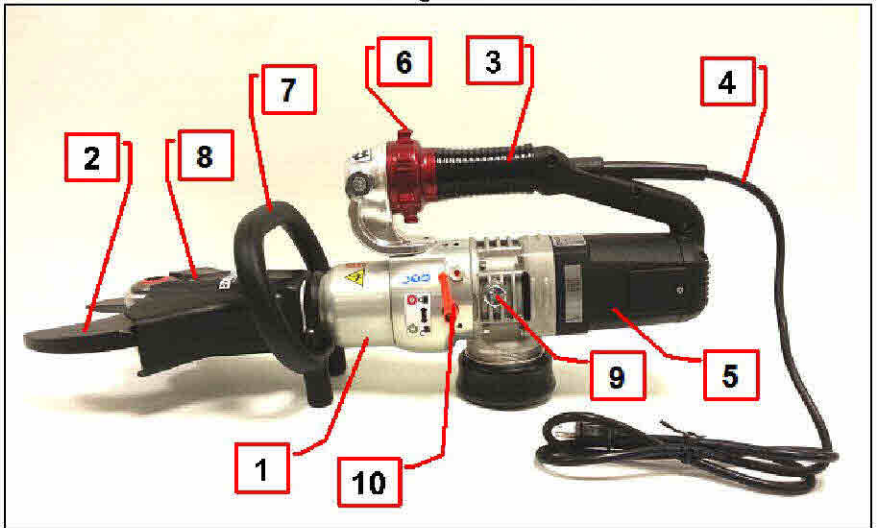
The equipment comprises:

- a motor, - a hydraulic pump driven by the motor, - a rod actuator (piston) driven by the oil pressured by the pump, - a fixed head with tool.

Fig. 1 shows the main parts of the machine fitted with a motor, in particular:

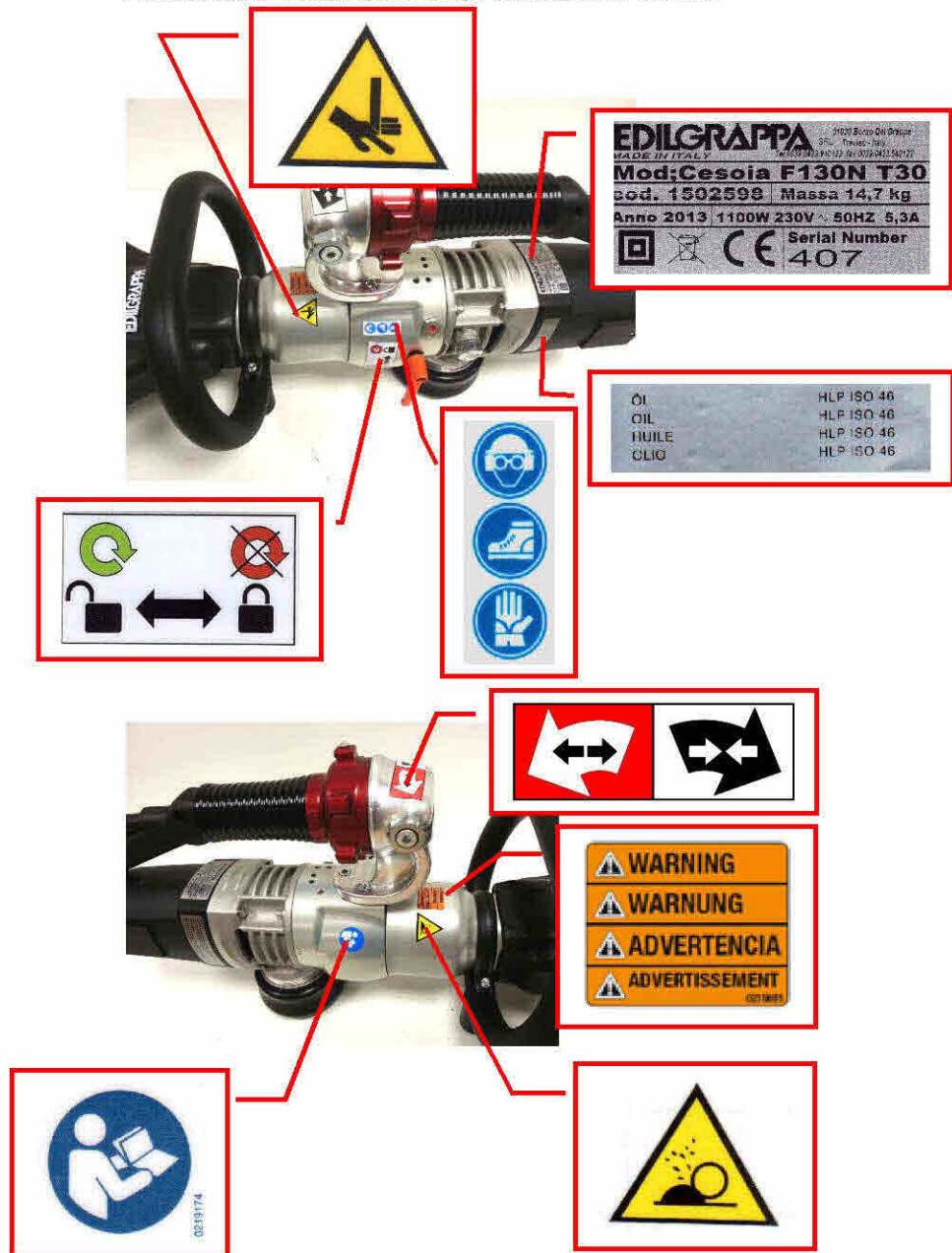
1. Cylinder with hydraulic components
2. Head with tool
3. Grip with actuation flange
4. Electrical connecting cable complete with plug
5. Motor
6. Actuation flange
7. Handle
8. Guard
9. Oil cap
10. Release valve for rotation

Fig. 1



0.02 SAFETY AND DANGER STICKERS - CE PLATE

Position of plate and safety and danger stickers on the machine:





Observe the warnings on the plates and stickers. Failure to do so could lead to injury or death.

Make sure the plates and stickers are attached and legible. If not, apply them or request the maker for replacements.

0.03 LIST OF ACCESSORIES INCLUDED IN THE SUPPLY

- Case
- General safety rules, Use and maintenance instructions
- Declaration of conformity
- Warranty certificate
- Simple repair key, if appropriate

1 TECHNICAL FEATURES

1.01 HYDRAULIC, MECHANICAL AND ELECTRICAL SPECIFICATIONS

Maximum force in the groove [t]	33.7
Maximum operating pressure [bar]	550
Dimensions L X W X H (with open blades) [mm]	642 X 253 X 251
Weight [kg]	14.5
Guaranteed no-load LwA sound level (CEI EN 60745-1 and CEI EN 60745-2-8) [dB]	98
No-load operator Lpa (CEI EN 60745-1 and CEI EN 60745-2-8) [dB]	87
Vibrations (CEI EN 60745-1 and EN ISO 5349)	3.97 m/s²
Input voltage [V]	230
Frequency [Hz]	50
Electrical power [W]	1100
Input current [A]	5,3
Insulation class	II
RPM	10000

2 DELIVERY, COMMISSIONING AND SET-UP

2.01 DELIVERY

The machine is normally shipped and delivered inside a special hard case, well secured and in a stable position (see adjacent figure). All the ordered material is inspected before delivery to the customer.



Upon receipt, check the machine for any damage (breakages or major denting) caused during transport. If so, it is necessary to immediately inform the shipping company and to write on the Delivery note the "Accepted subject to checking" clause.



In the event of damage, send a written complaint to the forwarder within 8 days of receipt.

Promptly inform Edilgrappa s.r.l. if major damage, caused during transport, is found upon receipt, or if any parts are missing.



It is also necessary to check the delivered materials against the detailed shipping list.

The machine can be moved easily both when it is inside its special rigid case, using the upper handle, and by gripping its upper or lower handle.



Loads must be moved in compliance with current occupational safety regulations.

After use, put the machine back into its case or place it on a stable surface, making sure this can withstand its weight.

2.02 ELECTRIC MOTOR

2.02.01 ELECTRICAL CONNECTIONS



THE USER SYSTEM AND THE RESPECTIVE CONNECTIONS MUST BE MADE IN STRICT OBSERVANCE OF THE REGULATIONS IN FORCE, BY COMPETENT PERSONNEL QUALIFIED TO DO THE JOB.



BEFORE CONNECTING THE APPLIANCE BY MEANS OF THE PLUG SOCKETS, TURN THE MAIN SWITCH TO OPEN POSIITON "O".

2.02.02 COMMISSIONING

These machines do not need any adjustment or particular precautions before commissioning.

The only controls to perform concern:

- Machine integrity:
make sure that nothing happened during transport that could damage the insulation or mechanical parts.
- Completeness of supply:
check that all the supplied accessories are fitted.
- Oil level:
check the oil level and top up if necessary as per the instructions in Para 3.01.



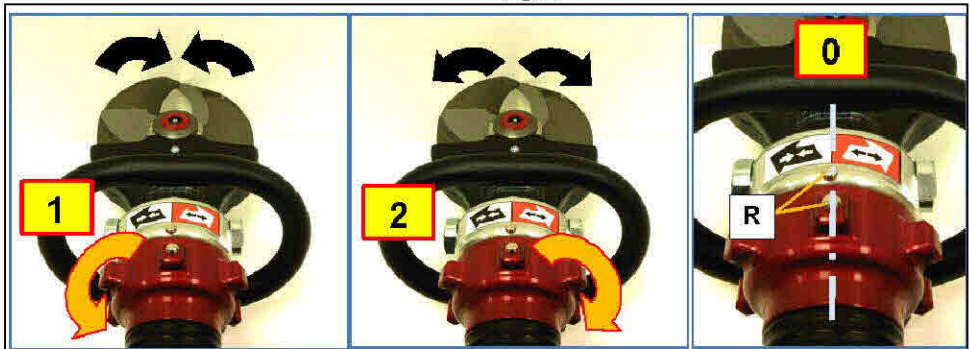
IMPORTANT: Before loosening the oil cap carefully read the instructions in Para 3.01.

2.03 ACTUATION FLANGE (DOUBLE-ACTING)

The actuation flange has two positions (see fig. 2)

- Position 1: The blades move close cutting phase
- Position 2: The blades move away return phase to original position
- Position 0: Shear off Neutral position

Fig. 2



IMPORTANT: Always check that the automatic return (of the actuation flange) to neutral position is correct. That is, check that the two reference marks on the flange and in the distribution block are aligned (see ref. R in fig. 2).

2.04 EQUIPMENT OPERATION

2.04.01 STARTING

Insert the plug in a suitable power socket and follow the instructions below, depending on the kind of machine you possess.

2.04.02 CUTTING

Position the blade perpendicular to the axis of the work piece (fig. 3).



IMPORTANT: Position the blade so as to minimise the cutting thickness.



Non-perpendicular blade positions with respect to the workpiece increase cutting thickness.

If the cutting thickness is greater than the limit established for the tool its blades may break.

After correctly positioning the blade on the workpiece, turn the actuation flange and hold it in position until cutting has been completed.

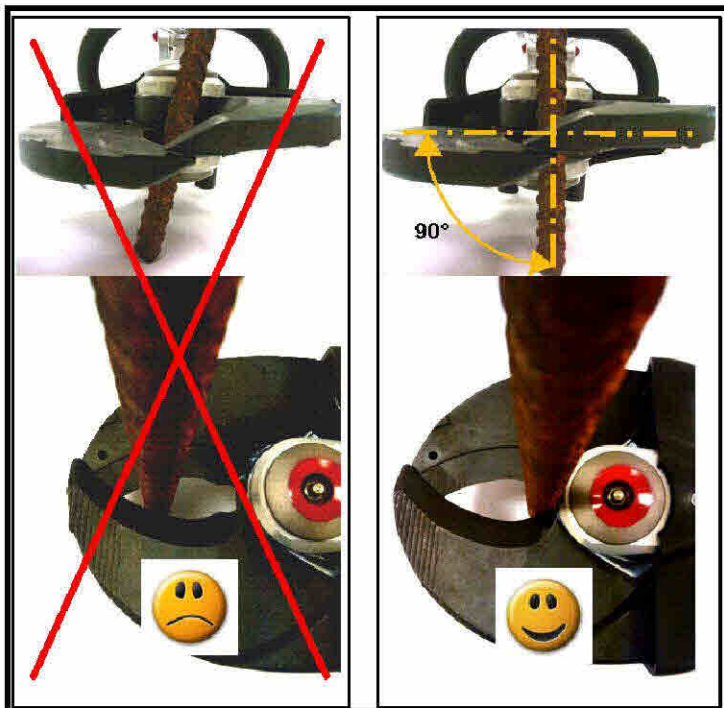


Fig. 3

2.04.03 ADJUSTING THE HEAD

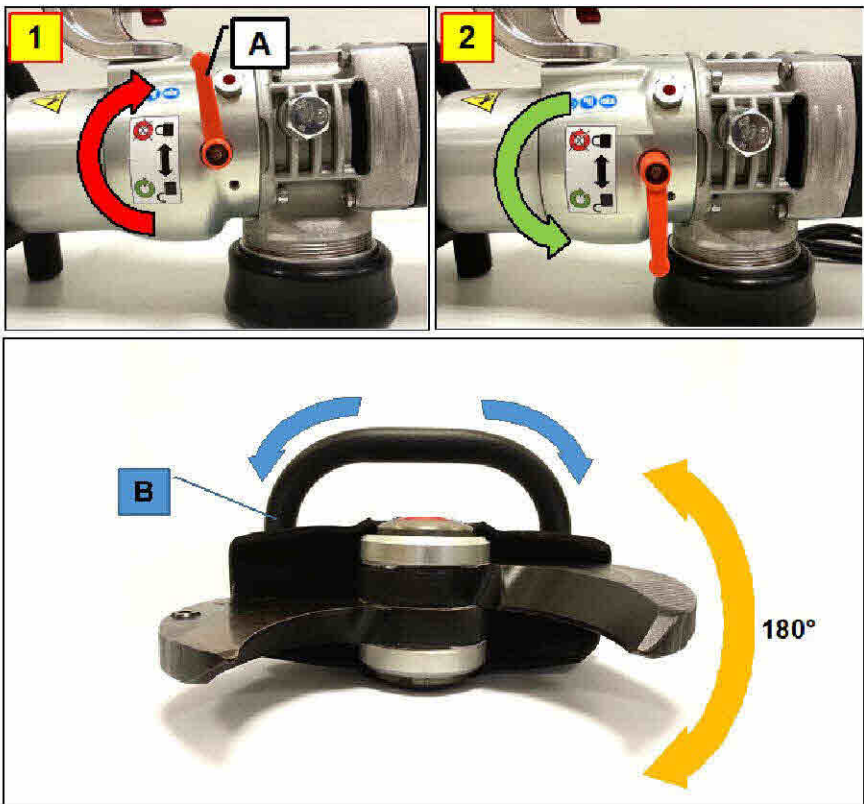
The head of this machine can be adjusted (rotated by 180°) to help the operator during positioning and subsequent processing.

To adjust the head, simply shift the release lever (ref. A in fig. 4B), as indicated by the arrow in sequence 1 to block the head; vice versa shift it as indicated by the arrow in sequence 2 to release the head and make its adjustment possible.

Once the head has been released it can be adjusted by means of the handle (ref. B in fig. 4B), as indicated by the two arrows.

After having brought the head into the desired position, block the rotation system as indicated in sequence 1 in fig. 4B in order to be able to continue working. With the rotation system released the machine does not transmit power to the blades.

Fig. 4B



Adjusting the head with the tool disconnected and not working. Hold the grip (ref. B in fig. 4B) and handle (ref. 3 in fig. 1) firmly, without touching the pivoting trigger, and move the head to the required position.



2.05 FORESEEN USE AND RESIDUAL RISKS

The machine must only be used to cut items in metal, such as rods, sections, small pipes, bearing in mind the data listed in the technical specifications. It is used in various sectors, including servicing and demolition.

The machine cannot be used for cutting parts not specified above.

Any use other than that expressly indicated shall be considered as improper and therefore not permitted.

Edilgrappa S.r.l. declines all liability for any improper use of the machine and for any modification or change made to it.

Operators must observe the instructions in this manual in order to minimise the risk of accidents. In particular, they must pay attention when working in conditions that could cause:

Possible burns from overheated metal parts.

Injury due to incorrect positioning or inadequate lifting or moving.

Injury caused by splinters discharged from the work piece.

People remaining in the vicinities of the machine while it is working are subject to the following risks:

flying debris (dangerous objects, etc...);

Operating temperature	-40° ÷ +50° C
-----------------------	---------------

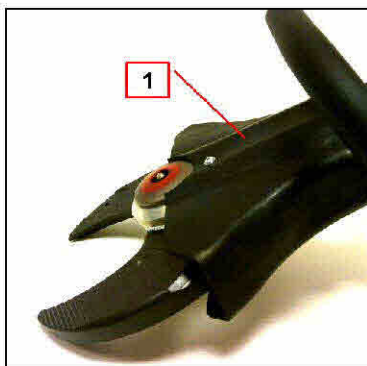


It is strictly forbidden to use the machine for purposes other than those indicated in this installation and maintenance manual.

It is forbidden to use the machine in areas subject to the risk of explosion.

2.05.01 SAFETY DEVICES

The machine is fitted with a safety device preventing contact with moving parts (levers and thrust fork) during the cutting phase; it also ensures protection against projected splinters and dangerous objects in the event of breakage of the thrust levers. It is a protective plastic guard secured to the machine with 2 screws (part 1 in fig. below).



Never tamper with the safety devices

3 ROUTINE MAINTENANCE



1. All maintenance, inspection and cleaning operations must be performed with the power supply disconnected and the machine cool (see the person responsible in the maintenance schedule);



2. Maintenance operations must be performed in a suitable place according to current safety regulations;

3. Before any maintenance intervention, thoroughly clean the machine (see Paragraph 5.01);

4. Wear suitable personal protective equipment while performing maintenance work.



AFTER MAINTENANCE WORK, MAKE SURE THE GUARDS ARE PUT BACK INTO THEIR CORRECT PLACE.

Periodic maintenance schedule

Frequency	Operation	Method	Person
EVERY 8 HOURS	• CHECKING THE INTEGRITY OF THE MACHINE	Visual	Operator
EVERY 1600 HOURS	• CHANGING THE OIL	Para 3.01	Maintenance man
EVERY 8 HOURS	• CHECKING TIGHTNESS OF NUTS AND BOLTS	Para 3.02	Operator
EVERY 8 HOURS	• CHECKING BLADES FOR WEAR	Para 3.03	Operator
/	• REPLACING THE BLADES		Maintenance man
EVERY 8 HOURS	• CHECKING GREASING OF CENTRAL PIN	Para 3.06	Operator



In case of doubts during the maintenance interventions, to order spare parts or for complex maintenance work, contact your authorised retailer.

3.01 CHANGING AND TOPPING UP THE OIL

The oil change or top up must be performed so as to prevent impurities from contaminating the oil or entering the tank. Impurities in the oil can irreversibly damage the hydraulic parts.



**ALWAYS MAKE SURE THE OIL CONTAINS NO IMPURITIES
DO NOT USE DIRTY TOOLS
DO NOT WORK IN DUSTY AREAS**

CHANGING THE OIL:

USING A SUITABLE DISPENSER, PREPARE THE CORRECT QUANTITY OF OIL (0.6 l) TO POUR INTO THE TANK.

LEAKING OIL CAN CAUSE SHORT CIRCUITS, FIRE AND EXPLOSIONS.

1. Place the machine horizontally in a stable position on a work surface with the magnetic cap facing upwards. Place a basin under the machine to catch any oil leaks;
2. Unscrew the magnetic cap (see part. 9 para 0.01) and remove any residues with the piston in its retracted position;
3. Totally drain the oil tank using a suitable extraction system (used oil extraction pump) so that no oil can leak into the machine;
4. Slowly pour in the correct quantity of oil (0.6 l) using suitable equipment (e.g. a funnel as shown in fig. 4). Only use new or clean recommended oil (as indicated on the next page);
5. Fill up to the upper rim of the hole;
6. Put back the oil cap and tighten slightly;
7. Perform some piston strokes to vent the large air bubbles;
8. Move the piston to its maximum extension and rapidly start and stop the motor several times (before the piston automatically retracts);
9. Complete filling;
10. Put the oil cap on and tighten.



Fig. 4

TOPPING UP THE OIL:



Before unscrewing the magnetic cap to check the oil level, make sure the piston is fully extended and, if necessary, pull it out (see fig. 4A). If this is not done the oil may leak, air bubbles may form and/or the oil level may be incorrectly measured, thus causing the machine to operate incorrectly.



Fig. 4A

Only after completing the above operations, proceed as shown below:

1. Place the machine horizontally in a stable position on a work surface with the filling hole facing upwards. Place a basin under the machine to catch any oil leaks;
2. Unscrew the magnetic cap (see part. 9 para 0.01) and remove any residues;
3. Check the amount of missing oil;
4. Slowly top up to the upper rim of the hole with recommended new and clean oil using suitable equipment (e.g.: a funnel as indicated in fig. 4);
5. Put the oil cap on and tighten.

Maximum quantity: 0.6 l.
Type of hydraulic oil: ESSO NUTO H46 or
approved equivalents HLP46
according to DIN 51 524 MIL-H 17672 C



When demolishing the machine or parts of it (oil, plastic, etc.) observe the regulations in force in the country in which this operation is performed.

3.02 CHECKING SCREWS

Periodically, or every day in the event of frequent or prolonged work, make sure that all the screws are perfectly tight.



FAILURE TO TIGHTEN LOCKING SCREWS CAN CAUSE SERIOUS DAMAGE.

3.03 CHECKING BLADES

The use of worn blades decreases the potential of the machine and can needlessly overheat the motor.

REPLACE AS SOON AS YOU NOTICE THEY ARE WORN

To replace the blades, apply to your nearest service centre or to the Maker.

3.04 HYDRAULIC COMPONENTS

3.04.01 MAX. PRESSURE VALVE INCORRECTLY ADJUSTED

In case of a pressure drop for a reason that cannot be directly identified, have a maintenance man or the maker check the maximum pressure valve is clean and calibrated.

3.05 ELECTRIC MOTOR

- Keep the motor surfaces clean, especially the fins on the head
- Keep the motor cooling slits clean and unobstructed
- Check the brushes for wear: replace them with authentic spare parts when their length is less than 5mm.

3.06 GREASING OF CENTRAL PIN

- Periodically or daily (in the event of frequent or extended works) check that the central pin is appropriately lubricated.
- To grease the pin, use lithium-based water-repellent grease and apply it with a manual grease gun (see example in fig. 5), pumping the grease into the grease nipple (indicated by the arrow in fig. 5).

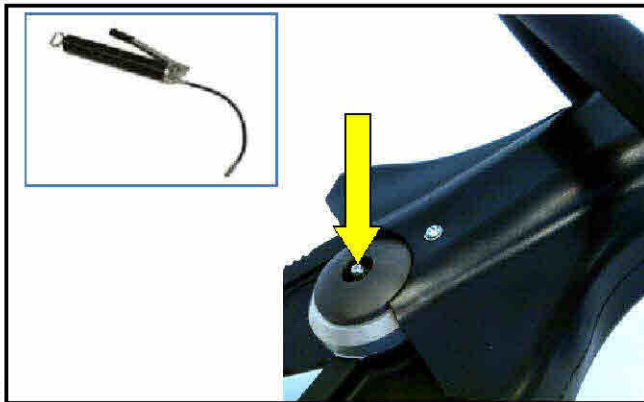


Fig. 5

4 POTENTIAL PROBLEMS AND MEASURES TO BE ADOPTED

4.01 GENERAL

Faults can be divided into three sections:

1. faults on the motor
2. faults on the head
3. faults not closely connected with the machine



ALL OPERATIONS MUST BE PERFORMED BY QUALIFIED PEOPLE IN OBSERVANCE OF SAFETY REGULATIONS.



WORK ON THE MACHINE DURING THE WARRANTY PERIOD MUST BE PERFORMED AT THE MAKER'S FACILITY



Remedies marked with the letter "R" require the assistance of the Authorised dealer. The remedies marked by the letter "M" require the intervention of the Manufacturer. Remedies marked with the letter "O" can be performed by the Operator.

4.02 TROUBLESHOOTING THE MOTOR

FAULT	POSSIBLE REASON	POSSIBLE REMEDY	PERFORMED BY
MOTOR DOES NOT START	Broken power cable	Replace cable with one having the same specifications	M
	Faulty plug	Replace	M
	Stator windings	Replace	R
	Rotor windings	Replace	R
	Microswitch	Replace	R
	No electric power	Check the line and the cable protections	M
ELECTRIC MOTOR OVERHEATED	Worn brushes	Replace	R
	Worn manifold	Replace or overhaul	R
	Insufficient power supply	Check the line, the protections of the electric panel and the tightness of the connection terminals	M
	Partial fault of the stator windings	Replace	R
	Partial fault of the rotor windings	Replace	R
	Windings dirty	Clean	M
	Ventilation slits obstructed	Clean	O
	Fan broken	Replace	R
Motor supports worn	Replace	R	

	Mechanical faults on the head	Overhaul	R
FAULT	POSSIBLE REASON	POSSIBLE REMEDY	PERFORMED BY
ELECTROMAGNETIC DISTURBANCES IN LINE	Fault in anti-disturbance filter	Replace	R
	Manifold worn	Replace	R
	Brushes worn	Replace	R

4.03 TROUBLESHOOTING ON HYDRAULIC PARTS

FAULT	POSSIBLE REASON	POSSIBLE REMEDY	PERFORMED BY
OUTWARD STROKE DOES NOT BEGIN	Damaged cursor	Replace	R
	Max. pressure valve dirty	Consult the Maker	/
	Actuation flange damaged	Replace	M
	Oil tank empty	Fill	O
MOTOR DOES NOT STOP	Earth cable interrupted	Repair	M
	Earth cable rusted	Clean	O
OUTWARD STROKE INCOMPLETE	No oil	Top up	O
OUTWARD STROKE DISCONTINUOUS	Air bubbles in the hydraulic circuit	Vent	O
	Max. pressure valve open due to built-up dirt	Consult the Maker	/
	Pump faulty or dirty	Replace	M
	Piston gasket faulty	Replace	M
	Pump O-ring	Replace	M
NO FORCE	Oil hydraulic pump faulty	Replace	M
	Dirt on oil hydraulic pump valve	Replace	M
	Max. pressure valve open	Replace	M
	Piston gasket worn	Replace	M
	Pump O-ring broken	Replace	M
OIL LEAKS FROM TANK COVER	Membrane faulty	Replace	O

5 STORAGE AND RESTARTING

5.01 STORAGE

In case of long periods of inactivity, proceed as follows:

5.01.01 ELECTRIC MOTOR

- Clean all the internal electrical parts (rotor, stator, cooling circuit) with compressed air



DO NOT USE CONDUCTIVE OR FLAMMABLE LIQUIDS TO CLEAN INTERNAL ELECTRICAL PARTS

- To clean the outside of the machine, if necessary, use a cloth dampened in soapy water and then dry thoroughly
- Check the following are in good condition:
 - insulation
 - power cable
 - switches
 - plug
- brushes and manifold
- clean the stator, rotor, cooling circuit and fan with compressed air

5.01.02 CYLINDER AND HYDRAULIC COMPONENTS

Before performing these operations, see the relative instructions in Chap. 3

- Check the hydraulic oil and top up or, if necessary, replace.
- Clean the magnetic cap and check the membrane.
- Check for any oil leaks.
- Tighten the screws.

Store the equipment in a clean and dry place accessible only to authorised personnel.

5.02 RESTARTING

Before performing these operations, see the relative instructions in Chap. 3

- Check the oil tank is full and top up if necessary
- Remove any traces of oil remaining after topping up or applied to protect metal parts from the grip and other parts that can be gripped.

ELECTRIC MOTOR

- Ensure that the power cable, the plug and the machine body have not been damaged.
- Start the machine a few times and make sure no operating faults occur.



ELIMINATE ANY FAULTS BEFORE STARTING WORK.

6 MACHINE DISPOSAL

When disposing of the machine, the various materials must be separated.

The machine comprises the following groups of materials:

- ferrous materials
- copper
- plastic

Observe current legislation when sorting, storing, recycling or disposing of these materials.

Only for EU countries:



This electric tool features the following recycling symbol. Consistently with Directive 2002/96/EC on waste electrical and electronic equipment (WEEE), at the end of its useful lifetime, this product must be disposed of separately in suitable collection areas and not together with normal domestic waste. A benefit for the environment and an advantage for all.

EDILGRAPPA

S.r.l.

Building, industrial and rescue machines and equipment.

Via Callesello, 4 – 31030 BORSO DEL GRAPPA (TV)
 Tel. (+39) 0423 910122 r.a. – Fax (+39) 0423 542122
eur@edilgrappa.com
www.edilgrappa.com

**DECLARATION
 OF CONFORMITY**



Maker:

EDILGRAPPA srl
Machines and equipment for the building trade, industry and rescue
 Via Callesello, 4
 31030 Borso Del Grappa (TV)

Name and address of person authorised to draw up the technical brief:

Giacomo Rorato
 Via Callesello, 4
 31030 Borso Del Grappa (TV)

**Generic name:
 Function:**

Portable electric power tool
 For cutting cables, ropes, metal parts such as rods, sections, small pipes.

**Type:
 Model:
 Commercial name:**

Electric shear
F130N T30 230V
SHEAR F130N T30 230V WITH ADJUSTABLE HEAD

Serial number:

Year of construction:

DECLARES THAT THE ABOVE-MENTIONED EQUIPMENT IS COMPLIANT WITH THE FOLLOWING DIRECTIVES:

Machinery Directive	2006/42/EC (Proc. App. VIII)
EMC Directive	2004/108/EC
Low Voltage Directive	2006/95/EC
RoHS Directive	2002/95/EC
WEEE Directive	2002/96/EC

Place: Borso Del Grappa TV
 Date.....

Signature
 PAOLO MAZZARO
 (legal representative)

EDILGRAPPA Srl

MACHINES AND EQUIPMENT FOR THE BUILDING TRADE, INDUSTRY AND RESCUE

31030 BORSO DEL GRAPPA (TV) - ITALY - Via Callesello, 4
Tel. 0423 910122 – Fax 0423 542122

E-mail: cut@edilgrappa.com <http://www.edilgrappa.com>