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MANUAL

EDILGRAPPA

**SINGLE-ACTING
INTERCHANGEABLE HEAD**

T22

USE AND MAINTENANCE INSTRUCTIONS

SINGLE-ACTING INTERCHANGEABLE HEAD

HEAD	NAME OF MACHINE	P/N
CUTTER	T 22	1.50.117

NOTE FOR USERS: THIS HANDBOOK IS AN INTEGRAL PART OF THE USE AND MAINTENANCE INSTRUCTIONS MANUAL FOR THE MU22N INTERCHANGEABLE HEAD MACHINE. OPERATORS MUST READ THE ABOVE MANUAL AND THIS HANDBOOK BEFORE STARTING WORK.

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0 GENERAL INFORMATION

0.01 FOREWORD

This manual was drawn up to allow customers to optimise operation of the interchangeable head and should therefore be read in its entirety before use.

The following chapters contain useful use and maintenance information. *Knowledge and scrupulous observance of current occupational safety and plant engineering legislation is a fundamental requirement for correct use.* Cost-saving and regular and safe machine operation can be achieved through rational use and careful maintenance. In case of faults or inefficient operation, call in specialist staff and order original spare parts from the maker, its technical assistance network and its technicians.

This manual forms an integral part of the interchangeable head. Users must scrupulously follow all the instructions it contains.

As the contents of this manual may change over time following modifications to reference legislation and/or technical improvements deriving from technological developments, its validity is determined from the date it was issued.

Pursuant to EEC Directive 85/374, the machine maker is not liable for harm to people, property or animals deriving from the negligent use or installation of the machine or failure to observe legislation. The maker also declines all liability if the machine is tampered with, if original parts are modified or if the machine is damaged due to incorrect storage or transport operations.

In thanking you for the preference shown to our company, please rest assured we will do our utmost to enhance the efficiency of our service and improve the quality and performance of our products and accessories according to our know-how and your requirements.

0.02 CONDITIONS OF SALE AND WARRANTY

Starting from the date of delivery, the Maker grants the purchaser a 24 (twenty-four) month warranty covering product quality and performance as follows:

1. *The warranty certificate must be compiled and returned to the Maker within 10 days from the date of delivery of the product.*
2. The warranty covers faulty spare parts but does not comprise labour and any transport costs.
3. Repairs will only be made under warranty if manufacturing faults are found or if the quality of the material is poor.

The warranty shall automatically expire if the fault is caused by:

- a fault in the electricity supply
- tampering, repairs or modifications without our permission
- improper use of the machine
- prolonged use without observing the pauses required for cooling
- forcing or wear caused by prolonged use
- no maintenance
- use on excessively hard or thick material
- incorrect positioning during processing.

Machine downtime for repairs under warranty is up to 10 days unless written notification to the contrary is received.

No damage deriving from machine downtime or damage caused to third parties shall be recognised.

The following product is compliant with Italian Ministerial Decree of 9/10/80.

0.03 SPECIAL SYMBOLS

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”:

The Machine body + Cutting head assembly

“INTERCHANGEABLE HEADS”: The equipment described in this manual

0.04 LIST OF ACCESSORIES INCLUDED IN THE SUPPLY

- Case
- Use and maintenance instructions manual
- Warranty certificate

1 GENERAL INFORMATION

1.01 GENERAL

This operating instructions manual concerns the mod. T22 head, exclusively designed for installation on the mod. MU22N interchangeable head machine body. For the relative instructions and reference standards consult the manual concerning the specific interchangeable head machine.

Hand-arm vibrations were measured on the handle of the MU22N machine body with T22 cutting head according to CEI EN 60745-1 and EN ISO 5349 standards.

The raw materials used and their processing during the product manufacturing cycle do not contain any toxic or hazardous materials referred to in Community Directives 2000/53/EC, 2011/65/EC (RoHS directive) and 2002/96/EC, as indicated in the relative raw materials test certificate.

1.02 GENERAL



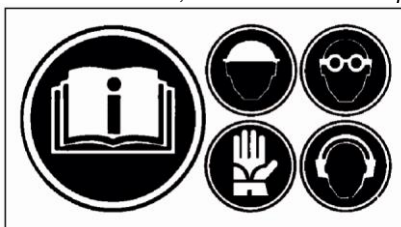
- ***The operator is responsible for safe machine machine.***
- ***Only allow the machine to be used by suitably trained and authorised adults.***



The machine offers a clear view of the tools, thus allowing the operator to ensure operations are being performed correctly.

B Use personal protective equipment. Always protect the eyes.

Protective equipment, such as dust masks, non-slip safety shoes, helmets or ear protectors, used in suitable circumstances, will reduce the risk of personal injury.



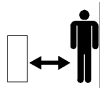
F Wear suitable clothing. Do not wear loose clothing or jewellery. Keep hair, clothes and gloves away from moving parts.

Loose clothing, jewellery or long hair can get caught up in moving parts.

- Do not service or clean the machine, or replace tools or guards while it is operating or, for equipment fitted with electric motors, with the power plug inserted in a power socket.
- Do not use the tool on materials with a hardness or section in excess of those indicated by the manufacturer.



- *Do not use naked flames or the like near the machine.*
- *Do not use the machine in areas subject to the risk of fire or explosion.*



- *Ensure other people remain at a safe distance when the machine is working (at least 5 metres). Cordon off the work area.*



- *Stop work if people and/or animals enter the work area.*
- *Periodically clean the machine and remove foreign bodies that could damage it or injure the operator.*



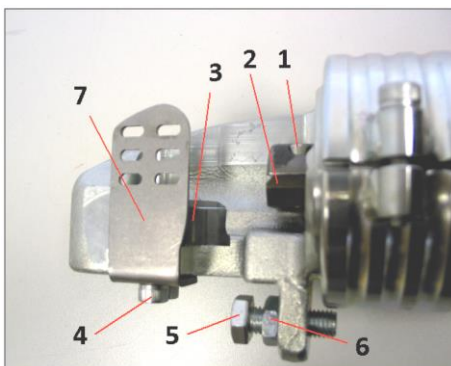
Before using the machine, make sure the safety devices are in place and in good condition; replace the guards immediately if they develop faults or suffer damage.

2 TECHNICAL FEATURES

2.01 DESCRIPTION OF HEAD

The T22 cutting head described in this manual was designed to cut steel rod and similar materials. A fixed blade and a mobile blade (see components in fig. 1) are mounted on the cutting head. The workpieces are cut by shearing. The tool can only be used if it is installed on the MU22N machine body.

1. Lock screw with washer (2 pcs);
2. Mobile blade;
3. Fixed blade;
4. Lock screw (2 pcs);
5. Check screw;
6. Lock nut;
7. Protection



2.02 TECHNICAL DATA

Cutting Φ	Ø22 mm – STEEL R=750 N/mm ²
Pressure on rod	560 bar
Dimensions:	140 x 119 x 105
Open time / Close time	
Weight	3.5 Kg.
Vibrations measured on the handle of the MU22 machine body with T22 head (CEI EN 60745-1 and EN ISO 5349)	2.12 m/s ²

2.03 FORESEEN USE AND RESIDUAL RISKS

The head must only be used to cut steel rod or other metal alloys in the building and industry sectors. Maximum cutting diameter is 22 mm and the unit tensile strength of the material (steel) must not be greater than 750 N/mm². Do not use the head to cut sheet steel, cables, pipe, plastic, wood or other items not mentioned 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 head and for any modification or change made to it.

Operators must observe the instructions in this manual and in the manual of the MU22N machine body 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 workpiece.

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
Cutting Ø and max. unit tensile stress	Ø 22 mm – STEEL R=750 N/mm ²



- ***It is strictly forbidden to cut sheet metal.***
- ***It is strictly forbidden to use the head for purposes other than those indicated in this installation and maintenance manual.***
- ***It is forbidden to use the head in areas subject to the risk of explosion.***

3 DELIVERY, COMMISSIONING AND CUTTING PHASE

3.01 DELIVERY

The head 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, immediately inform the shipping company and write the "Accepted subject to checking" clause on the Delivery note.



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.



Also 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.

3.02 COMMISSIONING



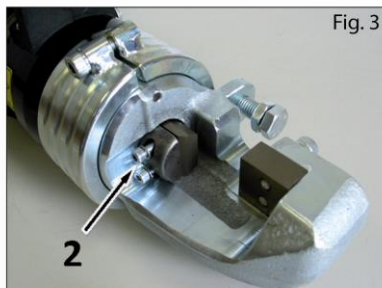
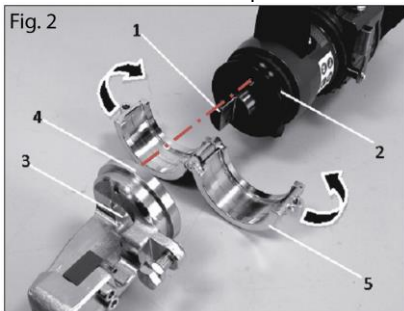
IMPORTANT: Before mounting any head on the machine body, carefully clean the piston rod, the supporting surfaces and the centring guides (n° 1, 2, 3, 4 and 5 in fig. 2).

3.02.01 MOUNTING THE HEAD

After placing the machine body and cutting head on a stable and sufficiently resistant surface, proceed as follows

- insert the head (ref. 4 in fig. 2) on the piston (ref. 1 in fig. 2) making sure that the reference pin enters its housing (dotted line in fig. 2);
- apply the lock ring (ref. 5 in fig. 2);
- insert and fully tighten the lock screw on the sleeve;

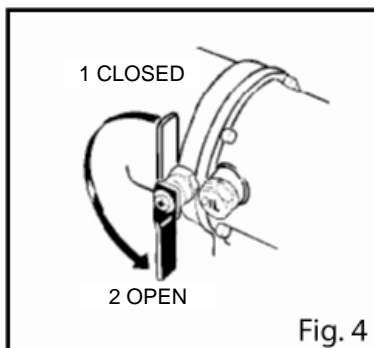
- mount the blade on the piston head and tighten the two screws (ref. 2 in fig. 3)



3.02.02 MANUAL RETURN LEVER

The manual return lever has two positions (see fig. 4)

- Position 1: valve closed. The piston work and return stroke takes place automatically.
- Position 2: valve open. To interrupt the work stroke or in case of emergency move the lever to position 2 to return the piston to its home position.



IMPORTANT: If the machine does not work make sure the manual return lever is in position 1.

3.03 CUTTING PHASE



- Make sure the check screw is adjusted (fig. 7) so that the workpiece lies at right angles to the axis of the equipment (fig. 6).



IMPORTANT: If the machine is moved towards the workpiece, hold it still with both hands and maintain a fixed position.



If the machine lies on a surface, keep one hand on the grip and hold the workpiece with the other (fig. 5)

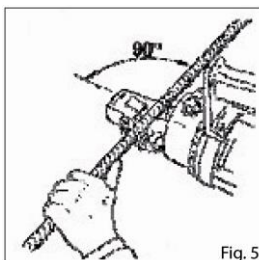


Fig. 5

To cut, proceed as follows:

- Place the workpiece against the fixed blade and check screw of the cutting head to ensure it is perpendicular to the machine axis (fig. 6). If necessary, adjust the check screw as indicated in fig. 7;
- Move the return lever to position 1 (see para 3.02.02);
- After correctly positioning the blade on the workpiece, press the start button and hold it down until cutting has been completed.

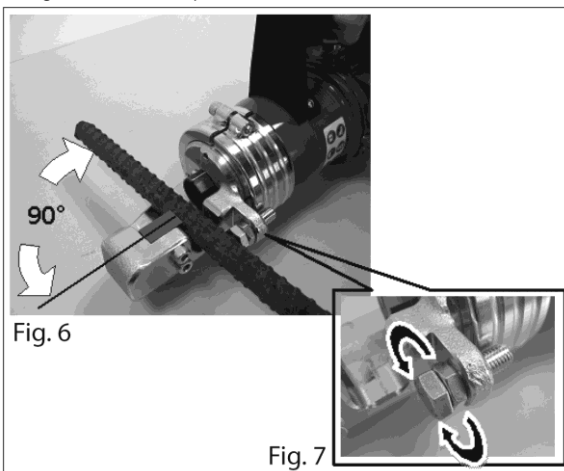


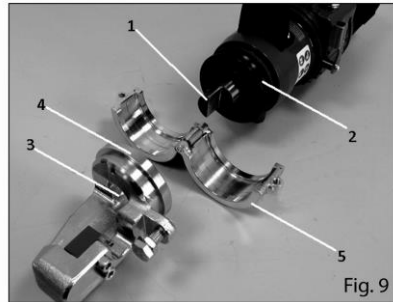
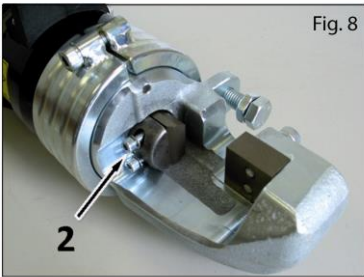
Fig. 6

Fig. 7

3.04 DISMOUNTING THE HEAD

After placing the machine body and cutting head on a stable and sufficiently resistant surface, proceed as follows:

- Loosen the two screws with washers (ref. 2 in fig. 8) and remove the blade from the piston head
- Loosen the lock screw and remove the lock ring (ref. 5 in fig. 9);
- Remove the cutting head (ref. 4 in fig. 9) from the machine body (ref. 2 in fig. 9).



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



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

Periodic maintenance schedule

Frequency	Operation	Method	Person
EVERY 8 HOURS	• CHECK THE INTEGRITY OF THE HEAD	Visual	Operator
/	• CLEAN THE PISTON	Para 4.03	Operator
EVERY 8 HOURS	• CHECK THE TIGHTNESS OF NUTS AND BOLTS	Para 4.01	Operator
EVERY 8 HOURS	• CHECK THE BLADES FOR WEAR	Para 4.02	Operator
/	• REPLACING THE BLADES		Maintenance man



If you have any doubts about ordering spare parts or performing complex maintenance work, contact your authorised dealer.

4.01 CHECKING THE SCREWS

Periodically, or daily in case of frequent and prolonged work, that all the lock screws in the head are correctly tightened (the screws securing the sleeve and the mobile blade).



FAILURE TO TIGHTEN LOCK SCREWS CAN CAUSE SERIOUS DAMAGE.

4.02 CHECKING THE BLADES

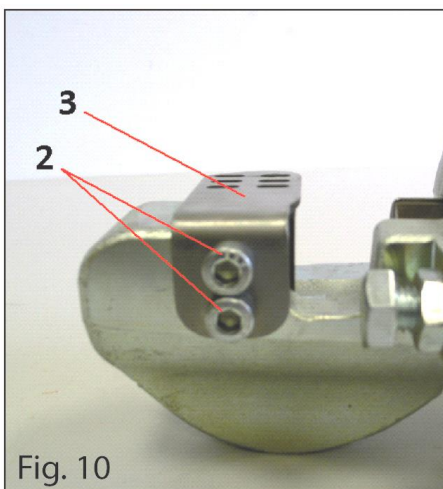
The use of worn blades decreases the potential of the machine and can needlessly overheat the motor.

REPLACE AS SOON AS YOU NOTICE THEY ARE WORN

REPLACING THE FIXED BLADE:

Place the machine horizontally on a stable work surface and proceed as follows:

- Loosen the two lock screws (ref. 2 in fig. 10);
- Remove the guard (ref. 3 in fig. 10);
- Replace the fixed blade;
- Put back the guard;
- Fully tighten the fixed blade with both lock screws.



REPLACING THE MOBILE BLADE:

Place the machine horizontally on a stable work surface and proceed as follows:

- Loosen the two lock screws and washers indicated in fig. 11;
- Replace the mobile blade;
- Fully tighten the Mobile blade with both lock screws and washers.

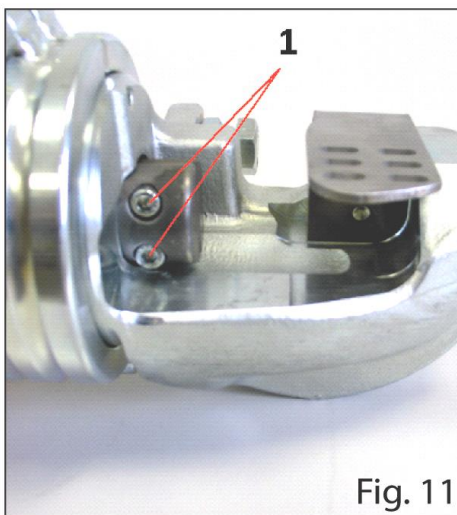


Fig. 11

4.03 CLEANING THE PISTON



KEEP THE PISTON BODY CLEAN IN ORDER TO ENSURE THE PISTON FULLY RETURNS AT END OF ITS STROKE AS OTHERWISE A NEW STROKE WOULD NOT BE POSSIBLE.

In case of operating faults caused by dirt building up on the piston head, proceed as follows (fig. 12):

- place the machine horizontally on a stable work surface;
- return the piston to its home position using a lever;
- clean the piston head.

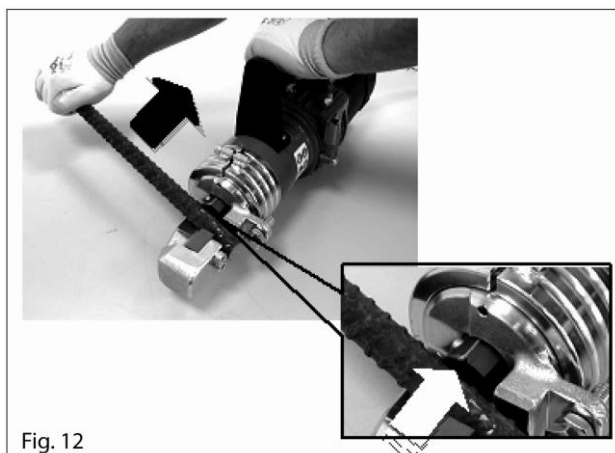


Fig. 12

5 POTENTIAL PROBLEMS AND MEASURES TO BE ADOPTED

5.01 GENERAL

Faults can be divided into three sections:

1. incorrect positioning
2. materials harder than the limit indicated in the technical specifications
3. mechanical stress of an intensity such as to alter the shape of the tool

In all cases, the alteration of tools leads to operating faults.

The operator must assess the seriousness of these faults and have the tool repaired by the manufacturer or entirely or partly replaced.



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

6 STORAGE AND RESTARTING

6.01 STORAGE

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

- store the equipment in a clean and dry place accessible only to authorised personnel;
- thoroughly clean the tool;
- lubricate it with a thin layer of oil.

7 DISPOSAL

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

The tool comprises the following groups of materials:

- ferrous materials

Please observe the legal regulations in force for the separation, storage, recycling or disposal of such materials.

EDILGRAPPA Srl
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AND RESCUE**

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