PROFESSIONAL SHARPENING MACHINE FOR HAIRDRESSING TOOLS

ADEMS Full Drive

USER MANUAL

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1. PURPOSE AND SCOPE OF APPLICATION

The ADEMS Full Drive household machine is designed for the professional sharpening of hairdressing scissors, both classic models and those with a convex blade shape.

2. STANDARD PACKAGE CONTENTS

The standard package includes:

- ADEMS Full Drive household machine – 1 unit;
- Two-link manipulator with universal holder – 1 unit;
- Power cord – 1 unit;
- Clamping washer for diamond cup wheel – 1 unit;
- Carrying case – 1 unit;

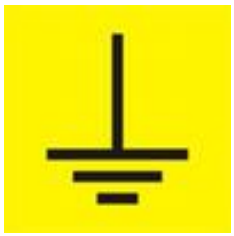
3. TECHNICAL CHARACTERISTICS

Types of sharpening tools	✓ Household scissors ✓ Hairdressing scissors ✓ Classic ✓ Hairdressing scissors ✓ Convex ✓ Grooming scissors
Sharpening Methods	✓ Rough ✓ Finishing ✓ Polishing
Machine Power Supply Voltage, V:	220
Lighting Power Supply Voltage, V:	12
Nominal power consumption of the electric motor, W, no more than	250
Disc rotation speed, adjustable, rpm.	0…3000
Diameter of replaceable disk, mm	150
Overall dimensions of the device, mm	230x336x340
Net weight, kg	16
Weight in packaging, gross, kg	18

4. SAFETY PRECAUTIONS

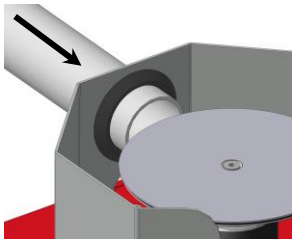
ATTENTION

Before starting work, inspect the machine for any visible damage to the power cord and moving parts. It is prohibited to turn on the machine if such defects are found until they have been rectified.



It is recommended to connect the machine only to a power outlet with a grounding line..

When working, wear safety glasses and a respirator mask. Goggles only provide protection from suspended dust and abrasive particles and do not protect against flying debris.



It is recommended to connect a dust extraction device to the dust protection opening of the machine to extract suspended dust and abrasives.

5. PREPARING THE MACHINE FOR WORK

Fig. 1 Assembly of the ADEMS Full Drive machine

Remove the machine from the packaging and install it in its designated work area in close proximity to a power source. Connect the power cord to the corresponding socket on the back of the machine. The power cord should not be taut: 20% of its length should lie loosely on the workbench. Place the rubber feet under the machine's support screws.

ATTENTION

If the machine is brought into a heated room from outside or from a cold environment during winter, do not unpack or turn it on for 8 hours. The machine must acclimate to the ambient temperature. Otherwise, it may malfunction upon startup due to moisture condensation on the electric motor components.

ATTENTION

The machine's disc must rotate freely by hand. Ensure that nothing obstructs its rotation.

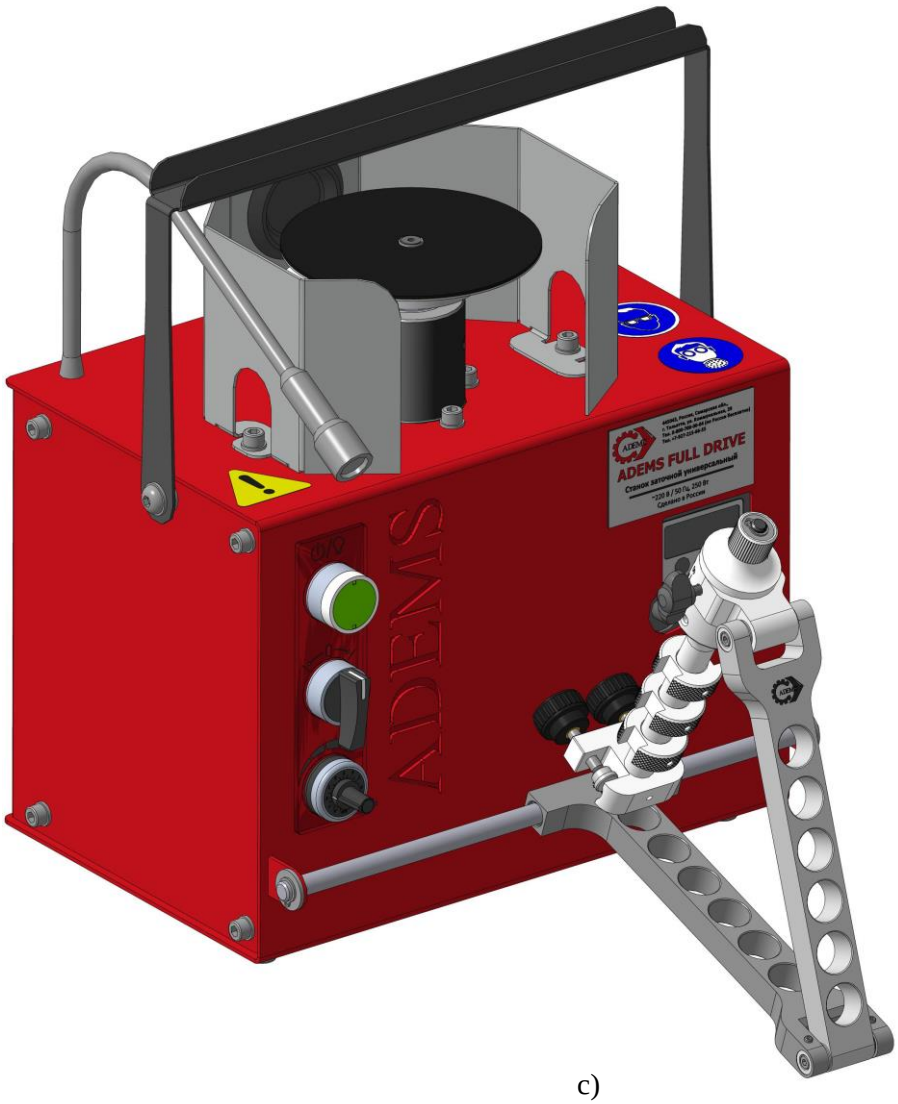
ATTENTION

Before connecting the power cord to the main power supply, ensure that the power cord is not damaged.

6. DESIGN

The design and operating principle are described based on Fig. 2.

a)



b)

c)

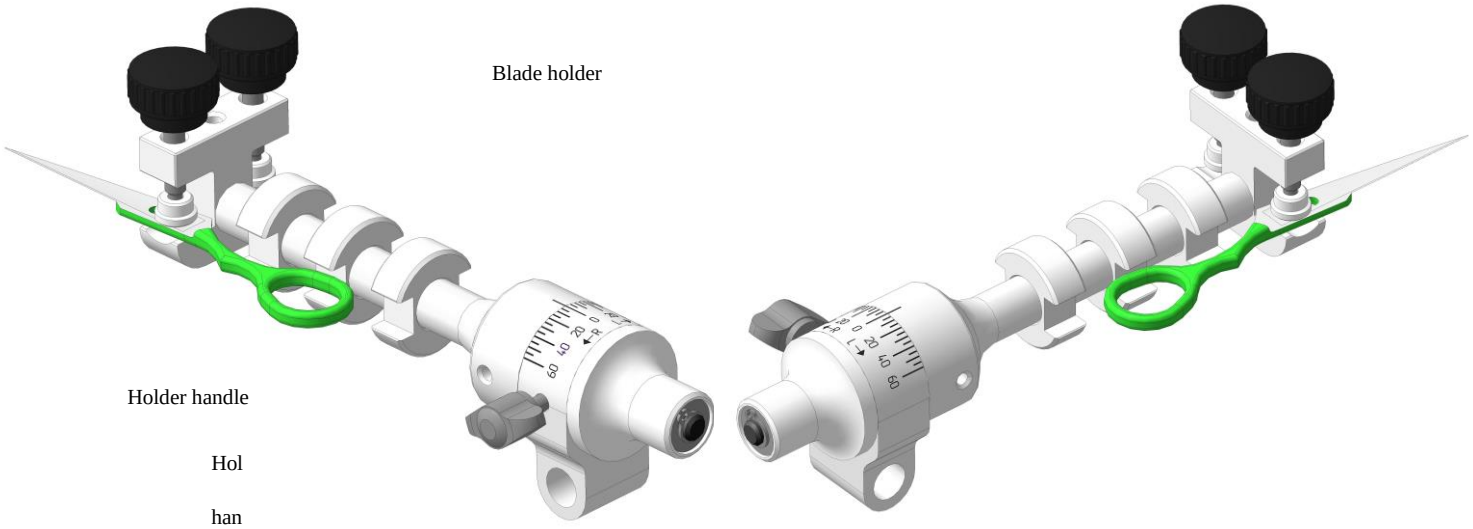


Fig. 2 ADEMS Full Drive Sharpening Machine

a) General view of the machine; b) Holder with right-handed shear blade;

c) Holder with left-handed shear blade.

7. OPERATING PRINCIPLE

At the start of work, connect the device to a 220V AC power supply with a frequency of 50-60Hz using the power plug.

STEP 1. Preparation for Work.

Before starting work, it is necessary to affix the abrasive discs from the supplied kit onto the metal backing discs. To do this, prepare the surface of the metal backing discs by degreasing them with acetone or solvent. Wait for the surface to dry completely. Apply aerosol adhesive to the surface of the metal backing disc, following the instructions on the adhesive can label. Carefully place the abrasive disc onto the adhesive-coated surface of the metal backing disc with the abrasive side facing up. Press down while simultaneously centering it with the edges of the metal backing disc. Use abrasive discs with the grit values you require for the specific case. After 5-10 minutes, install the disc with the abrasive onto the magnetic base of the machine's disc. Center the metal backing disc relative to the machine's disc.

ATTENTION

Additionally, you can increase the number of ready-to-use discs with pre-applied abrasive. To do this, you need to cut discs from abrasive sheet material (purchased separately) according to the diameter of the metal backing disc. Then repeat step 1.

STEP 2. Scissor Analysis.

First, check if the scissors requiring sharpening have been sharpened before. Also, note the blade shape: classic or convex.

Next, visually inspect the blades' cutting edges for any nicks. Fully open the scissor jaws and slowly close them, trying to feel resistance caused by any existing nicks.

Check how the scissor tips meet: if there is a gap between them or if they overlap.

Visually check how the scissors cut.

Ensure the scissor edges are not damaged.

Make sure there are no other damages on the screw or the blades.

Disassemble the scissors, inspect the blades. Rinse them, as well as the nut, bolt, and other parts, cleaning off accumulated dirt. Place all scissor parts in a separate container to avoid losing anything.

Rinse the bolt hole.

Inspect the cutting edge and the supporting line of the scissor cutting edge to determine how much metal can and should be removed during sharpening.

STEP 3. Angle Setting.

Ensure that when the lower part of the scissor holder is placed on the surface of the metal disc, the intermediate mark on the holder's handle aligns with the mark corresponding to "0" on the scale body as shown in Fig. 2b, and the blade holder is securely locked in this position, as a weak lock may result in an incorrect sharpening angle.

For right-handed scissors with classic straight sharpening

1. Loosen the locking handle on the degree scale.
2. While pressing the locking button on the angle-lock mechanism body, shift the body towards the double holder until the intermediate mark is exposed (gap between the scale bodies = 4mm). Hold the body along its entire diameter to avoid tilting and jamming on the axis.
3. With one hand, hold the knurled handle, and with the other, holding the support bushings, rotate the parts in opposite directions until they stop.
4. Set the required sharpening angle by aligning the intermediate mark with the mark on the scale body indicating the required sharpening angle, then secure it with the handle on the degree scale.
5. With one hand holding the support bushings, and the other pressing the lock button of the angle-lock mechanism, align the intermediate mark with the zero mark of the sharpening angle lock unit

(by rotating the sharpening angle lock body relative to the intermediate mark).

6. After the intermediate mark is aligned with the required sharpening angle and the zero mark of the lock unit, lower the angle-lock mechanism body down until the intermediate mark is completely hidden.
7. Proceed with sharpening.

For right-handed scissors with convex sharpening

1. Place the blade to be sharpened in the left slot of the double holder.
2. Loosen the handle on the degree scale.
3. While pressing the locking button on the angle-lock mechanism body, shift the body towards the double holder until the intermediate mark is exposed (gap between the scale bodies = 4mm). Hold the body along its entire diameter to avoid tilting and jamming on the axis.
4. With one hand, hold the knurled handle, and with the other, holding the support bushings, rotate the parts in opposite directions until they stop (knurled handle clockwise, handle with support bushings counterclockwise).
5. Set the required sharpening angle by aligning the intermediate mark with the mark on the scale body indicating the required sharpening angle (scale marked "R" to the left of the zero mark), then secure it with the handle on the degree scale.
6. With one hand holding the support bushings, and the other pressing the lock button of the sharpening angle-lock mechanism, align the intermediate mark with the required free-play angle on the lock mechanism body (5-15°). On the scale located to the right of the lock symbol (by rotating the sharpening angle lock body relative to the intermediate mark).
7. After the intermediate mark is aligned with the required sharpening angle and the mark of the lock unit providing the required holder rotation angle, lower the angle-lock mechanism body down until the intermediate mark is completely hidden.
8. Proceed with sharpening (disc rotation direction – clockwise).

For left-handed scissors with convex sharpening

1. Place the blade to be sharpened in the right slot of the double holder.
2. Loosen the handle on the degree scale.
3. While pressing the locking button on the angle-lock mechanism body, shift the body towards the double holder until the intermediate mark is exposed (gap between the scale bodies = 4mm). Hold the body along its entire diameter to avoid tilting and jamming on the axis.
4. With one hand, hold the knurled handle, and with the other, holding the support bushings, rotate the parts in opposite directions until they stop (knurled handle counterclockwise, handle with support bushings clockwise).
5. Set the required sharpening angle by aligning the intermediate mark with the mark on the scale body indicating the required sharpening angle (scale marked "L" to the right of the zero mark), then secure it with the handle on the degree scale.
6. With one hand holding the support bushings, and the other pressing the lock button of the sharpening angle-lock mechanism, align the intermediate mark with the required free-play angle on the lock mechanism body (5-15°). On the scale located to the left of the lock symbol (by rotating the sharpening angle lock body relative to the intermediate mark).
7. After the intermediate mark is aligned with the required sharpening angle and the mark of the lock unit providing the required holder rotation angle, lower the angle-lock body down until the intermediate mark is completely hidden.
8. Proceed with sharpening (disc rotation direction – counterclockwise).

Fig. 2.1 Holder Assembly

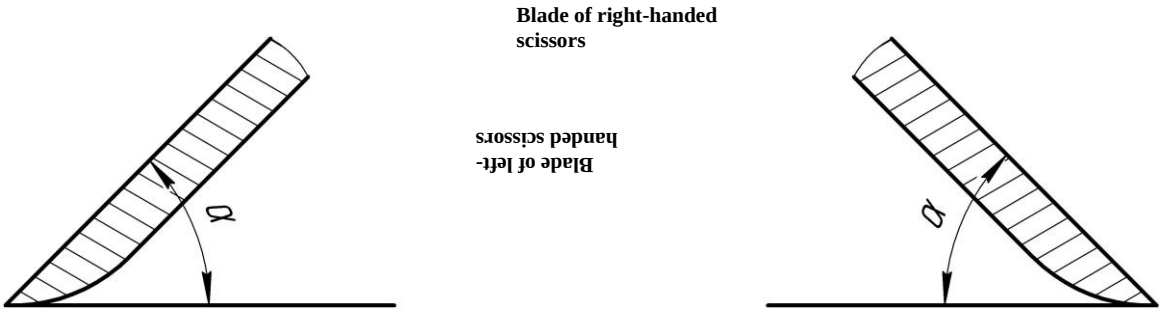


Fig. 3 Sharpening angle

ATTENTION

The sharpening angle in this example is indicated for illustrative purposes. The specific angle value for each pair of scissors is chosen independently by the master, based on the design of the scissors being

sharpened and the degree of wear on the cutting edge from previous sharpenings.

ATTENTION

Position the scissor blade so that its cutting edge is parallel to the axis of the holder. Insert the blade into the slot of the blade holder, ensuring the entire length of the cutting edge is free for sharpening.
By turning the clamping screw, firmly secure the blade in the holder to prevent rotation.
Ensure the blade is securely clamped.

ATTENTION

Before installing the blade, ensure the screw has a supporting washer to avoid scratches and scoring on the scissor blades.

STEP 5. Sharpening Classic Scissors.

Install the metal disc with abrasive onto the magnetic base of the machine's disc.
The choice of the first disc depends on the wear level of the scissors being sharpened. We recommend starting to sharpen the tool with 320 Grit abrasive.

Ensure the rheostat handle is in the "MIN" position. Turn on the machine by switching the three-position switch to the operating position, then smoothly move the rheostat handle to the position corresponding to the required rotational speed.

ATTENTION

Adjust the disc rotation speed to 1000 RPM (the frequency converter readings are displayed on its digital display).
Gently bring the blade into contact with the abrasive disc. Hold the holder in its extreme position to maintain a constant angle for the scissor blade's cutting edge. At the same time, smoothly move the entire holder from the periphery towards the center of the disc. Make several such passes.
Lift the holder and visually verify that the cutting edge is forming correctly. If it deviates from the existing edge, you need to add to or reduce the holder's angle value (see Step 3).
Once the angle is confirmed to be correct, continue as necessary. Afterward, stop the machine by moving the three-position switch to the central (vertical) position. After the disc comes to a complete stop, remove the 320 Grit metal disc and install the next disc with a finer (higher number) grit. Center it and repeat the operation. To compact the subsurface metal layer on the cutting edge, we recommend making approximately 3 to 5 transitions from one disc to another, increasing the grit fineness.

STEP 6. Sharpening Convex Scissors.

Install the metal disc with abrasive onto the magnetic base of the machine's disc.
The choice of the first disc depends on the wear level of the scissors being sharpened. We recommend starting to sharpen the tool with 320 Grit abrasive.

ATTENTION

The choice of the first disc depends on the wear level of the scissors being sharpened.

ATTENTION

Adjust the disc rotation speed to 1000 RPM (the frequency converter readings are displayed on its digital display).
Gently bring the blade into contact with the abrasive disc. Perform rotational movements of the holder along its axis from the extreme right to the extreme left position. At the same time, smoothly move the entire holder from the periphery towards the center of the disc. Make several such passes.
Lift the holder and visually verify that the cutting edge is forming correctly. If it deviates from the existing edge, you need to add to or reduce the holder's angle value (see Step 3).
Once the angle is confirmed to be correct, continue as necessary. Afterward, stop the machine by moving the three-position switch to the central (vertical) position. After the disc comes to a complete stop, remove the 320 Grit metal disc and install the next disc with a finer (higher number) grit. Center it and repeat the

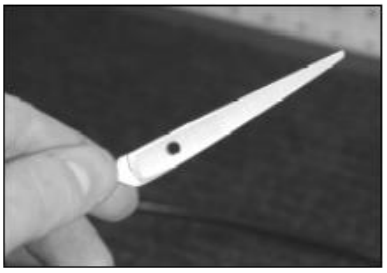
operation. To compact the subsurface metal layer on the cutting edge, we recommend making approximately 3 to 5 transitions from one disc to another, increasing the grit fineness.

STEP 7. Forming the Support Surface (Secondary Bevel).

Remove the scissor blade from the holder and wet the 1000 Grit waterstone (not included in the standard package).

Place the blade on the waterstone at a 45° angle with the cutting edge facing away from you.

Applying pressure near the pivot area, place your hands on the blade and draw it towards you to remove the burr..



Wipe the moisture off the waterstone and reapply it. Place the blade on the stone at a 45° angle and perform back-and-forth strokes until a supporting surface (secondary bevel) for the cutting edge appears.

Repeat 5-8 passes. The same procedure must be carried out with the second blade.

STEP 8. Polishing the Blades.

After obtaining the desired sharpening angle and forming the support surface (secondary bevel), reinstall one of the blades into the holder.

Install the metal disc with 2000 Grit abrasive and set the disc rotation speed to the maximum value using the speed controller by turning it clockwise. If necessary, diamond paste can be additionally applied to the abrasive. Switch the three-position selector to the operating position to start the machine.

ATTENTION

Lower the holder with the blade towards the abrasive disc. After the blade contacts the disc, begin carefully moving it from the disc's periphery towards the center.

Ensure that while rotating the holder, you bring it to its extreme positions to be confident that the cutting edge will be polished correctly.

Continue this operation for approximately 30 seconds. Then, lift the holder with the blade and visually verify that most scratches have been removed.
After achieving a polished surface, repeat the same process for the second blade.

ATTENTION

A perfectly polished cutting edge is not always ideal for a hairdresser. It is advisable to clarify with the hairdresser beforehand how the cutting action will be performed. All these actions, as well as the quality of the sharpened and polished cutting edge surface, we leave to the discretion of the master sharpener.

STEP 9. Scissor Assembly.

ATTENTION

Before assembling the scissors, it is recommended to first demagnetize the blades. To do this, use a demagnetizer (purchased separately).

Now the scissors can be assembled. Be careful when tightening the screw and the force applied when bringing the blades together. Do not forget to lubricate the pivot point.

STEP 10. Cutting Test.

The assembled scissors must be checked for correct sharpening.
One of the most common tests is performed on a sheet of multi-ply tissue paper moistened with water from a spray bottle.

Pull the scissors towards you when they are already 50% closed on the test piece of paper. At the same time, continue to close the blades. The paper should be cut, not torn.

8. ADJUSTMENT, ADJUSTMENT, LUBRICATION

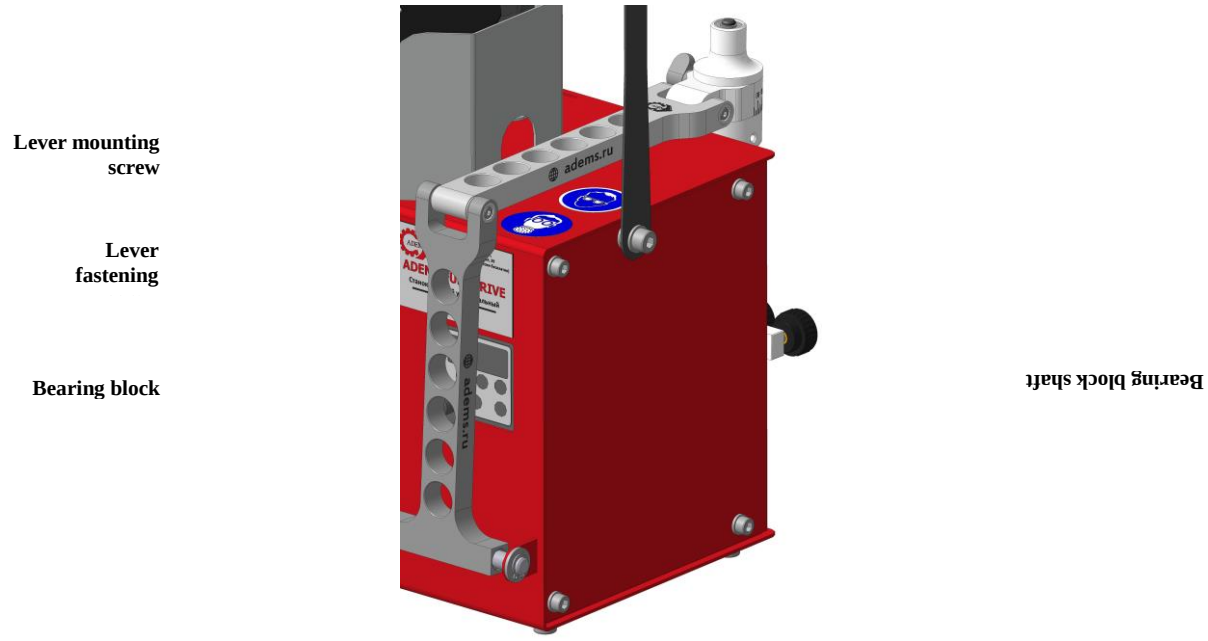


Fig. 4 Manipulator with universal holder

The levers of the machine's two-link manipulator and the holder handle must rotate freely on their axes by hand, without jamming or binding. The bearing block must move along the bearing block shaft freely without seizing. If necessary, lubricate the rubbing elements with LITOL or CIATIM-201 grease. Carefully wipe off any excess grease with a cloth to prevent abrasive dust from adhering.

ATTENTION

To minimize play in the connection between the manipulator levers and the holder, the screws are tightened with a specific torque. Altering this tightening torque will increase the play or damage the bearings. To prevent damage, the screw tightening is visually secured with a paint mark. Any breach of this mark's integrity will void the machine's warranty.

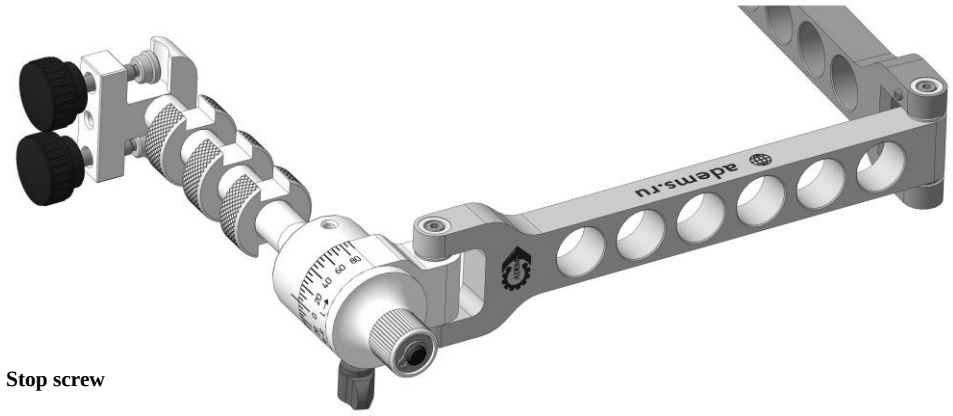


Fig. 5

ATTENTION

To extend the life of the block bearings, regularly wipe the axle clean of abrasive dust.

After each use, thoroughly wipe the machine with a rag to remove abrasive dust and prevent it from getting into the moving parts. This will prevent premature play. If the machine is not in use for an extended period (more than two days), cover it with a dust cover.

Our company is constantly working to improve the machine, so minor design changes may occur that are not reflected in this specification.

ATTENTION

If a fuse blows, replace it. An additional fuse is stored in a socket on the rear of the housing.

9. OPTIONS

A set of consumables for sharpening hairdressing tools for the ADEMS Full Drive machines.

This set is developed by our company's specialists for sharpening and polishing hairdressing scissors, animal grooming scissors, surgical, and dental instruments on the ADEMS Full Drive machine.

The set includes:

A set of 150 mm self-adhesive abrasive discs (240, 320, 600 Grit) – 10 pcs. of each type;

A set of 150 mm self-adhesive abrasive discs (800, 1000, 1200, 1500, 2000 Grit) – 5 pcs. of each type;

A set of waterproof sandpaper sheets (3000, 5000, 7000 Grit) – 2 pcs. of each type.

A set for sharpening scissors longer than 6 inches for the ADEMS Full Drive machine.

This kit is designed for the professional sharpening and polishing of hairdressing scissors (convex, classic, hot, thinning) longer than 15 cm.

The set includes:

Magnetic-backed aluminum disc, 190 mm – 1 pc.;

Metal disc, 200 mm – 3 pcs.;

Plate washer guard (protective cover) – 1 pc.;

A set of waterproof sandpaper sheets, 230x280 mm (240, 600, 1000 Grit) – 3 pcs. of each type;

Hex key №3 – 1 pc.;

Hex key №5 – 1 pc.

A set for sharpening hair clipper blades.

To expand the functionality of the machine, a set for sharpening hair clipper blades, as well as blades and plates for manual and electric meat grinders, is offered.

The set includes:

- Faceplate, 220 mm diameter (flat/conical) – 1 pc.;
- Faceplate guard (protective cover) – 1 pc.;
- Abrasive powder (silicon carbide F220 – 100 g) – 3 pcs.;
- Abrasive powder (aluminum oxide F240 – 100 g) – 2 pcs.;
- A set of brushes for burr removal – 1 pc.;
- Magnetic holder for blade blocks – 1 pc.;
- Hex key №3 – 1 pc.;
- Hex key №5 – 1 pc.

ATTENTION

When sharpening hair clipper blades, set the faceplate rotation speed to 2000 RPM. It is not recommended to exceed the specified speed, thereby reducing the load on the bearings.

10. WARRANTY SERVICE TERMS AND CONDITIONS

10.1. The warranty period is one year from the date of sale.
10.2. Warranty and post-warranty repairs are performed exclusively by specialists of the ADEMS company.
10.3. The warranty covers only manufacturing defects identified during the operation of the equipment within the warranty period.
10.4. Equipment is accepted for warranty repair only if accompanied by properly completed documents: a free-form application addressed to the General Director, containing the following information:

- equipment name;
- purchase date;
- equipment cost;
- reason for the warranty claim;
- whether the equipment has been used or not;
- buyer's signature;
- equipment serial number, as stated in the product manual for this equipment.

10.5. The warranty does NOT cover:

- consumables and accessories (e.g., discs, abrasive belts, sandpaper, oils, filters, etc.);
- power cords; in case of insulation damage, they must be replaced without the owner's consent.

10.6. Warranty repair is NOT performed in the following cases:

- absence, damage, or alteration of the serial number on the equipment or in its accompanying manual, or a mismatch between them;
- use of the equipment contrary to its intended purpose as specified in the user manual;
- failure due to overload;
- mechanical damage to the equipment;
- defects arising from actions of third parties, force majeure, natural disasters, adverse atmospheric conditions, and/or exposure to aggressive environments and high temperatures;
- natural wear and tear of the equipment (full or partial depletion of service life, severe internal or external contamination, rust);
- damage resulting from failure to comply with the operating conditions specified in the manual;
- equipment damage due to power grid voltage fluctuations;
- ingress of foreign objects into the equipment, which are not by-products of normal use;
- equipment damage due to non-compliance with storage and transportation rules;
- after attempts at self-disassembly, repair, structural modifications, or lubrication of the equipment during the warranty period, as evidenced by damaged seals/stickers;
- malfunctions related to insufficient equipment maintenance;
- partially or fully disassembled equipment.

10.7. Preventive maintenance of the equipment (cleaning, flushing, and lubrication replacement) during the warranty period is a paid service.
10.8. The service life of the equipment is 3 years from the date of manufacture.
10.9. The owner will be informed of any potential violations of the above warranty terms after the equipment is diagnosed by ADEMS specialists.
10.10. The owner authorizes ADEMS specialists to perform diagnostics in their absence.
10.11. Under no circumstances shall ADEMS be liable for:

- losses or damages that, at the time of purchase, could not be attributed to a breach of the warranty terms by ADEMS;
- losses incurred due to the owner's fault, loss of commercial appearance, lost profits, or consequential damages.

10.12. Available service options, spare parts, and response times may vary by country. If service

is required in a country where ADEMS has no Authorized Service Provider, service options may be limited. Where international service is possible, ADEMS may repair or replace equipment and parts with comparable items meeting local standards.

ATTENTION

The warranty period is extended for the duration the equipment is undergoing warranty repair.