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Operation, Maintenance, Safety

Translation of original operating instructions
for the edge-, stair- and corner-sanding machine

ELAN

Lägler®

00.350.20.002

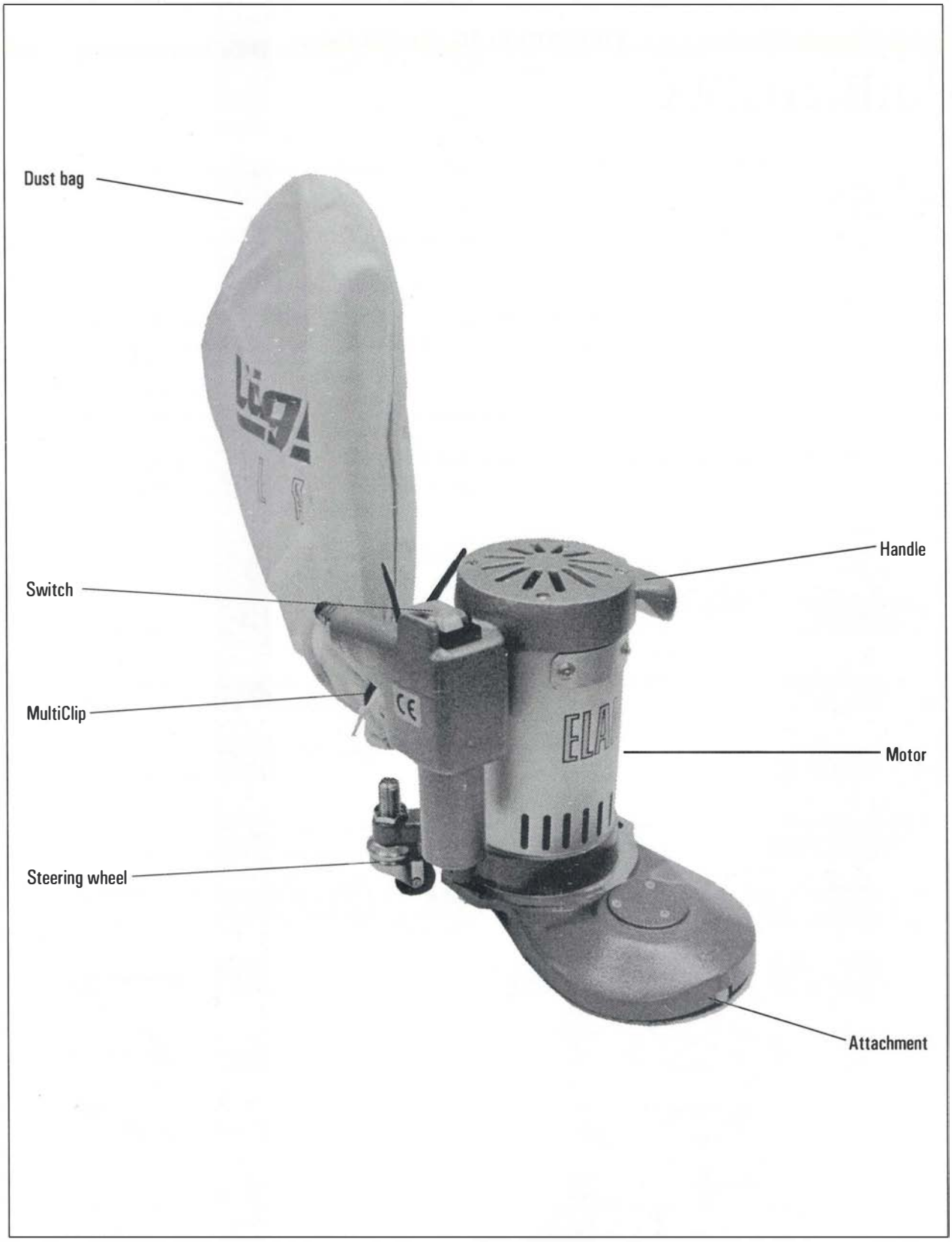


Fig. 1: Main features of the stair-sanding, edge-sanding and corner-sanding machine ELAN

1. Introduction

You have purchased a high-quality product from Lägler. We wish you great success with your ELAN. This machine was manufactured using the most modern methods of production. All Lägler products are subjected to a thorough inspection before leaving the factory.

Please read these operating instructions carefully before you start working with your ELAN for the first time. These operating instructions include important information on work safety and will give you answers to many questions so that you can work with the machine safely and without any problems. If you cannot find a specific subject in this manual, please refer to your sanding instructions manual or contact your local dealer. Your local dealer is very familiar with the ELAN machine and is a highly qualified expert trained by our company. Your local dealer will provide you with the best possible advice and support.

1.1 Features of the machine

In figure 1 (page 2), we have included the designations of the most important components of the ELAN. Take your time to become familiar with the machine.

1.2 Description of the machine

The ELAN stair-sanding, edge-sanding and corner-sanding machine works with a sanding disc on which Velcro sanding discs can be fastened. Traditional sanding discs fastened with a tensioning screw can, of course, also be used. The work zone is protected by the attachment. The fan housing, on which the electric motor is mounted in vertical position, is located on the attachment. A motor power supply cable is used to connect the machine to the power supply system. The motor switch with ON / OFF is located on the right side in the handle piece. The machine is moved by means of two steering wheels at the rear side of the machine. The handles are located on top of the motor. The suction union piece, to which the dust bag clamp and the dust bag are attached, is located underneath the handles.

The ELAN can only be used for dry processing operations. Never use the ELAN for wet processing operations (life-threatening risk)!

Contents

1.3 Application

The stair-sanding, edge-sanding and corner-sanding machine ELAN is suitable for the dry sanding of wooden floors, cork floors and wooden stairs in the professional and rental business sectors.

Any other form of use without the approval of the manufacturer is not permitted.

No wet processing operations!

1.4 Safety instructions

Please read the danger warnings carefully and also instruct your employees or colleagues accordingly. Otherwise, these persons could be exposed to danger or be injured.

When the sanding disk is touching the floor, the machine must not be switched on in order to prevent injuries.

Use the tools, accessories and spare parts that have been made by LÄGLER for the ELAN only. Otherwise, this could result in damage to the machine, the processed object or for the operator.

Make sure the dust bag is properly fastened in order to prevent unnecessary and unhealthy dust emissions for the operator and the environment.

Incorrect transport operations will result in machine damage.

To prevent any damage due to fire or explosions, the dust bag must be emptied after the work has been completed and the contents then be stored outdoors.

The power supply cable must be kept out of the work zone in order to prevent any damage to mechanical or electrical equipment.

To exclude the possibility of the machine being started unintentionally, the power supply must be interrupted by removing the power supply plug from the socket after the machine has been switched off.

For proper protection against fault currents, a DI-safety plug (art. no. 000.01.65.010) should be used.

In case of correct machine operation, the mandatory dust emission values will not be exceeded. When emptying the dust bag, it is advisable to wear a respiratory protective mask P3 (art. no. 000.01.20.010).

1.5 Protective devices

The following parts of the machine are protective devices and must therefore always be keep in perfect condition:

cover panel	=	dust protection, protection against sanding disc, protection against V-belts
attachment	=	protection against sanding disc

2. Technical data

Manufacturer	Eugen LÄGLER GmbH
Machine type	edge-sanding machine
Serial number	see reverse page
Year of manufacture	see reverse page
Motor type	universal motor
Voltage	230 V
Frequency	50/60 Hz
Output	1.2 kW
Fuse	10 A
Insulation class	F
Protection system	IP 22
Thermal overload protection	
Zero-voltage activation	
Sanding disc diameter	Ø = 150 mm
Sanding disc speed	approx. 4,000 rpm
Attachment height	42 mm
Attachment length, short version	110 mm
Attachment length, long version	310 mm
Attachment length-corner attachment	130 mm
Attachment height-corner attachment	45 mm
Sanding disc diameter-corner attachment	Ø = 75 mm
Overall width	230 mm
Total weight	8 kg
Dust emissions at workplace	< 2 mg/m³
Workplace-related noise emission values	89 dB(A)

Note:
The motor data mentioned above refers to machines used in the Federal Republic of Germany. Exported machines may have other data that can be seen on the motor type designation plate.

Application purposes
Dry stair-sanding, edge-sanding and corner-sanding of wooden floors and cork floors.

Not to be used for
any wet processing operations!

Note:
The values mentioned above are emission values and must not represent safe workplace values as well. Although a correlation exists between emission levels and immission levels, it is not always possible to determine whether additional precautionary measures are required. Factors that can have an effect on the immission level existing at the workplace include the duration of the effects, the characteristics of the work area and other sources of noise, e.g. the number of machines and other processing operations in the vicinity. The permissible workplace values may also vary from country to country. This information, however, is intended to enable the user to estimate the dangers and risks better.

Basic equipment
Machine ready for use, dust bag, Multiclip for fastening the dust bag, dust bag clamp, extension cable 3 x 1.5 mm² – 10 m long, universal wrench, respiratory protective mask P3 and operating instructions.

Special accessories
Attachment long (art. no. 350.04.50.100)
Corner attachment (art. no. 350.08.00.100)
Foldable earmuff type Pocket (art. no. 000.01.10.021)

Wearing parts
Please check the condition of the wearing parts mentioned below at regular intervals in order to be able to work safely and optimally at all times:

- Extension cable (art. no. 000.65.53.151), renew in case of damage
- Motor cable (art. no. 000.65.43.151), renew in case of damage
- Felt disc (art. no. 350.03.34.105), renew in case of wear or damage
- Velcro disc (art. no. 350.03.35.205) renew in case of wear or damage
- Multiclip (art. no. 000.01.40.110), renew in case of damage
- V-belt (art. no. 000.71.24.044 or art. no. 000.71.51.084), renew in case of wear
- Dust bag (art. no. 350.00.80.105), renew in case of wear or damage
- Steering wheel (art. no. 350.00.80.100), renew in case of wear or damage
- Switch 230 V (art. no. 350.65.00.100), renew in case of wear or damage
- Paper tensioning disc (art. no. 350.03.16.100), renew in case of wear or damage
- Hexagonal nut for paper tension (art. no. 0934.1008.000), renew in case of wear or damage
- Sanding disc axle (art. no. 350.03.105), renew in case of wear
- Carbon brushes (art. no. 350.65.82.105), renew in case of wear
- Motor belt pulley (art. no. 350.65.05.100), renew in case of wear

3. Getting started

This section describes how to put the ELAN into service on site. In order to prevent damage and malfunctions, you should proceed in the order of steps mentioned below. Before starting to work with the machine, you must be properly instructed by your dealer.

3.1 Preparing the machine

1 Unpack the machine carefully. Dispose of the packing materials according to environmental regulations or keep them in order to be able to ship the machine in case of any problems.

2 Install the dust bag clamp in the drilled hole at the end of the suction muff.

3 Place the Multiclip over the opening of the dust bag.

4 Place the opening of the dust bag over the dust bag clamp and the suction muff.

5 Push the Multiclip over the suction muff of the machine. Make sure the Multiclip is facing upwards.

6 Tighten down the Multiclip by hand. Make sure the dust bag is not lying in folds underneath the Multiclip.

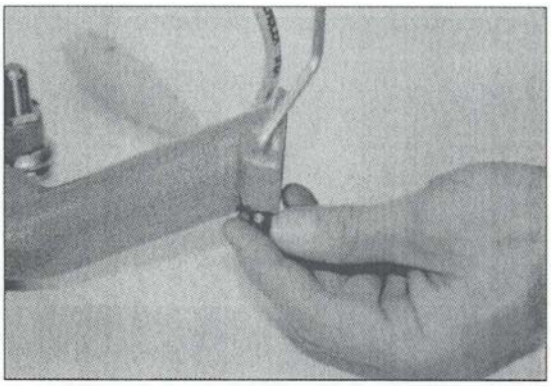


Fig. 2 Installation

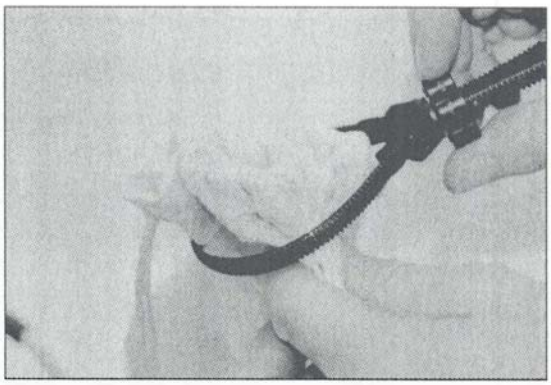


Fig. 3 Push the Multiclip over the dust bag and ...

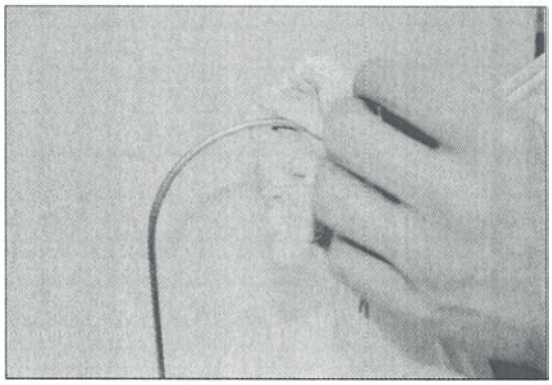


Fig. 4 ... place the dust bag over the clamp before ...

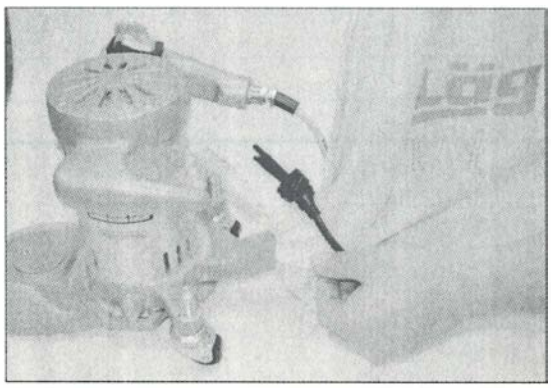


Fig. 5 ... tying up and sealing the dust bag with the Multiclip.

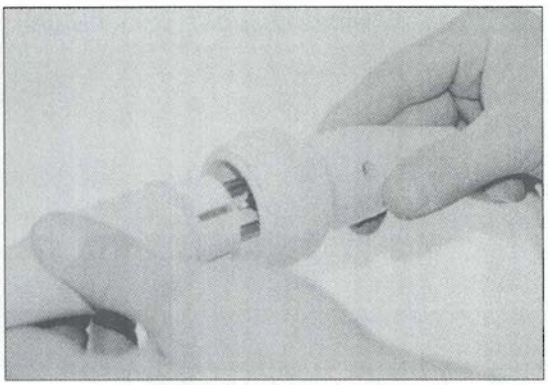


Fig. 6 Connect the motor cable to the extension cable

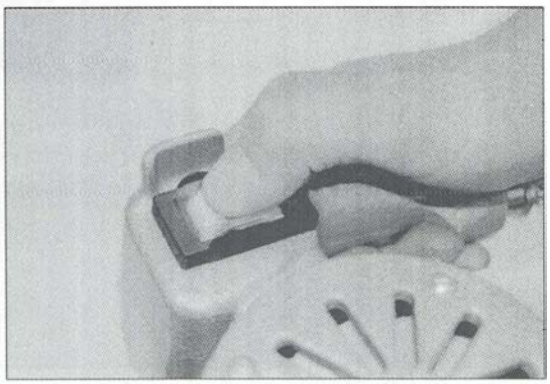


Fig. 7 Use the switch on the right to switch on and off

3.2 Connecting the power supply cable

1 Insert the plug of the motor cable in the coupling of the extension cable.

2 Insert the extension cable in a suitably protected 230 V socket with ground contacts. For more safety, we recommend the use of a DI-safety plug.

3.3 Starting the machine

The ELAN is now ready to be started. When the machine starts up, the sanding disc must be relieved of load. You may then use the switch to start the machine.

3.4 Switching off the machine

Press the switch to switch off the machine. Never let the machine run unattended and pull out the power supply plug when you have finished working with the machine.

4. Working with the ELAN

4.1 General application tips

The ELAN is a very versatile machine. The required attachment can be replaced in a matter of seconds. The ELAN is used for fine sanding of transitions, borders, edges, corners and stairs.

Deep sanding marks due to the selection of a too coarse sandpaper grain size can be prevented by starting the first sanding operation with a fine sandpaper grain size to the extent possible.

Prevent sanding marks made by previously used sandpaper grain sizes by adhering to the order of the sandpaper grain sizes and never skip more than a sandpaper grain size. Following each sanding operation, vacuum the floor thoroughly.

After changing over to a new sanding disc, start working in poorly lit areas in the room in order to remove the initial aggressiveness of the sanding disc.

Bear in mind that the ELAN operates at very high cutting speeds. For this reason, danger of burn marks exists for finer sandpaper grain sizes!

Pay attention to the recommended cable guidance in accordance with the illustration on the right.

Please refer to the LÄGLER sanding instructions for additional important and interesting application tips. You will receive further information by calling the following telephone or fax numbers:

in Germany, call the telephone no.: 07135/9890-0
or, free of charge, the fax no.: 0130/121876
in the US, call the telephone no.: 800-848-6635

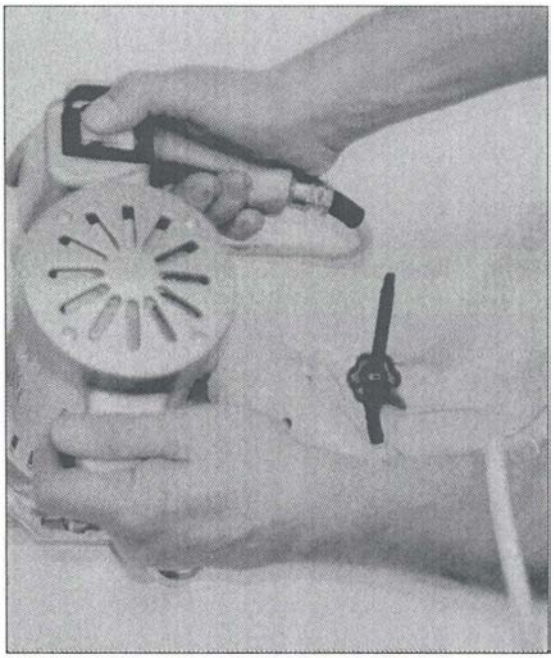


Fig. 8 Guide the ELAN with both hands. Place the power supply cable coupling crosswise on the dust bag muff behind the machine and the cable over your left forearm.

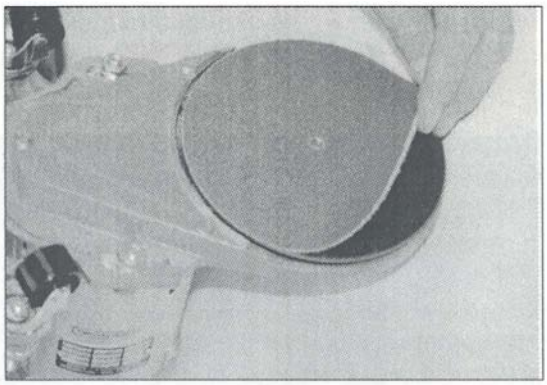


Fig. 9 Simply pull off the Velcro sanding discs ...

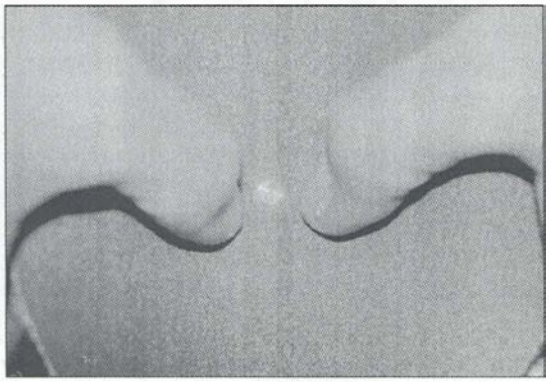


Fig. 10 ...and mount the new disc in centered position and press down.

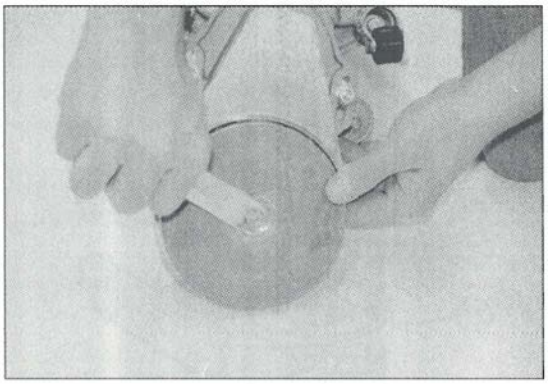


Fig. 11 Remove conventional sanding discs by loosening the tensioning nut with the universal wrench and ...

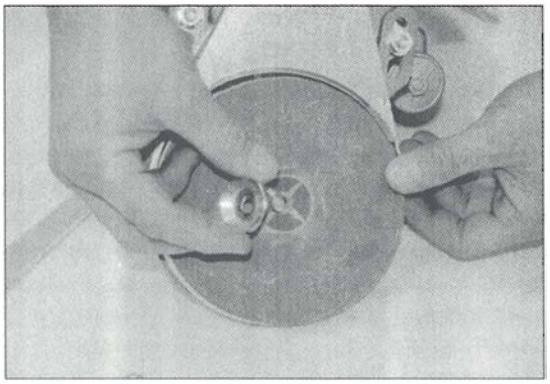


Fig. 12 ... after pulling off the disc ...

4.2 Replacing the sanding disc

Depending on the processing operation, you will use various sandpaper grain sizes. To replace the sanding disc, proceed in the following manner:

4.2.1 Velcro sanding discs

1 Switch off the machine.

2 Pull out the power supply plug.

3 Place the machine upside down carefully in order to prevent damage to the floor and machine.

4 Pull off the worn-out Velcro sanding disc from the sanding plate.

5 Place a new Velcro sanding disc on the sanding plate. The Velcro sanding disc must be seated in centered position on the sanding plate. A drilled hole in the centre of the sanding disc and the sanding plate axle make this step easier.

4.2.2 Conventional sanding discs

1 Switch off the machine.

2 Pull out the power supply plug.

3 Place the machine upside down carefully in order to prevent damage to the floor and machine.

4 Use the universal wrench to loosen the hexagonal nut of the paper tensioning device.

5 Rotate the hexagonal nut all the way out. Remove the paper tensioning disc from the sanding plate and put these parts aside.

6 Place a new sanding disc on the sanding plate and press the paper tensioning disc onto the sanding plate axle.

7 Rotate the hexagonal nut onto the sanding plate axle; make sure the sanding disc is fastened in centered position on the sanding plate.

8 Use the universal wrench to tighten down the paper tensioning screw high-tight.

Always mount one sanding disc only, since otherwise the sanding results will be unsatisfactory and the dust suction system not be fully operational!

4.3 Re-equipping the sanding plate support

The ELAN is equipped with a factory-installed Velcro negative. Re-equipping to a felt support is possible since the sanding plate supports have been designed as self-adhesive versions. Traditional paper discs or Velcro sanding discs can be used on the Velcro support.

1 Switch off the machine.

2 Pull out the power supply plug.

3 Place the machine upside down carefully in order to prevent damage to the floor and machine.

4 Remove the sanding disc and the old sanding plate covering.

5 Clean the steel sanding plate of all disc and adhesive residue.

6 Degrease the steel sanding plate using a thinner (observe the manufacturer´s safety instructions!).

7 Stick the new sanding plate covering carefully onto the sanding plate and make sure the covering is seated in centered position and the drilled holes in

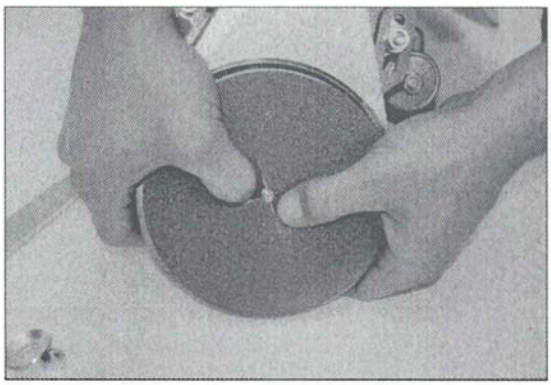


Fig. 13 ... mount a new disc and assemble again.

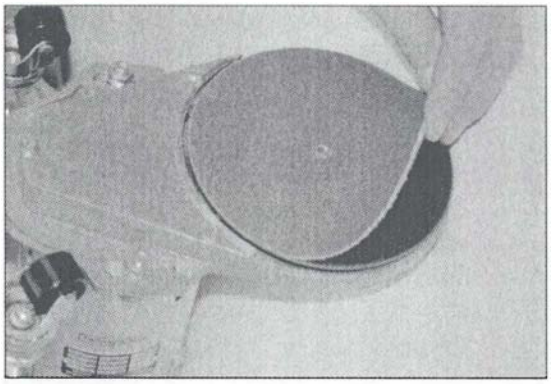


Fig. 14 After removing the sanding disc ...

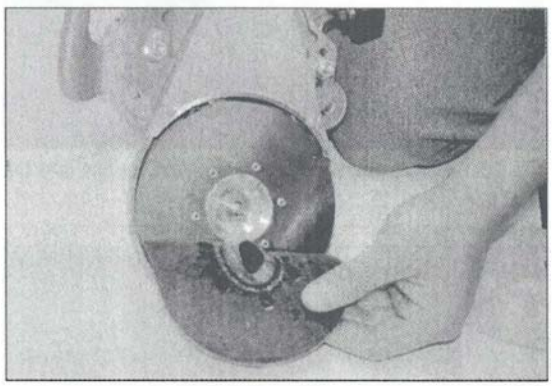


Fig. 15 ... pull off the Velcro negative, clean the sanding plate and ...

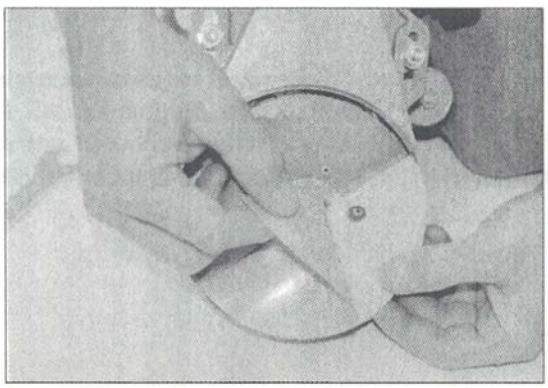


Fig. 16 ... place the new sanding plate covering on the fastening rivets correctly lined up ...

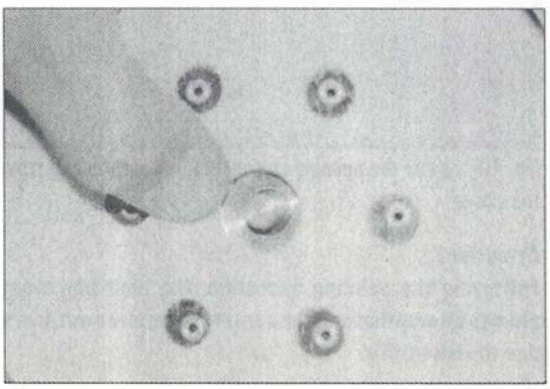


Fig. 17 and then press down over the entire surface and in the cone on the thread.

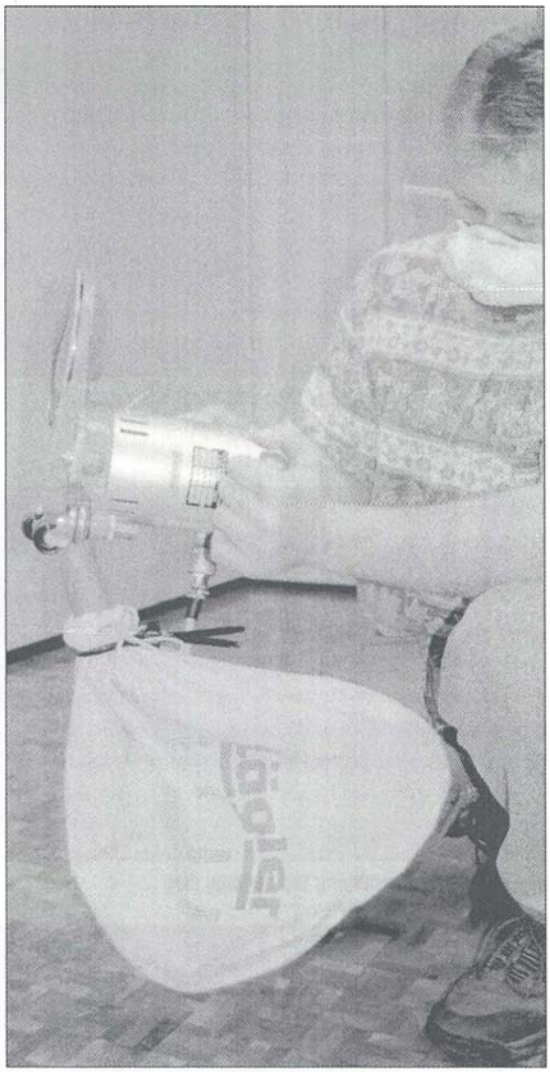


Fig. 18 Before emptying, shake the dust residue into the dust bag.

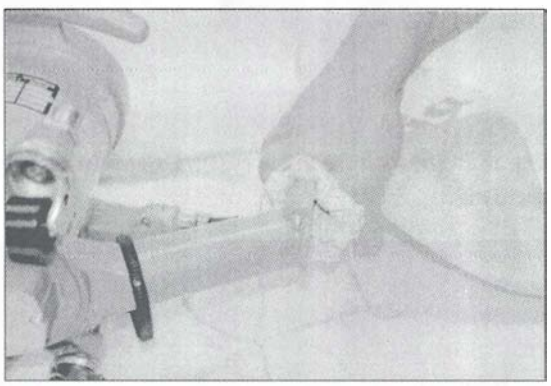


Fig. 19 Keep the opening closed and pull off the bag from the clamp.

Attention!
Following the sanding operation, the dust bag must always be emptied and the contents be stored outdoors due to risk of fire.

the covering line up with the rivets of the sanding plate.

8 Depending on the sanding disc type you are now using, you must carry out the mounting procedure as described in sections 4.2.1 and 4.2.2.

4.4 Emptying the dust bag

The dust bag must be emptied when it is one-third full at the very latest in order to prevent a deterioration of the suction performance due to the missing filtering surface area. When emptying the dust bag, it is advisable to wear a respiratory protective mask – P3 –.

1 Pick up the machine and shake the dust residue into the dust bag.

2 Undo the cord and Multiclip fastener of the dust bag.

3 Keep the opening of the dust bag closed and carefully pull it off from the pipe muff and the clamp.

4 Empty the dust bag into a non-flammable container. Store the sanding dust outdoors. **Risk of fire!**

5 Attach the dust bag again.

5. Storage

If the machine must be stored for a longer period of time, take the necessary measures to ensure dry and frost-free storage with minimum temperature fluctuations.

Professional tip:
Tilt the machine over on its side so that the sanding disk support of the machine does not become damaged.

6. Maintenance routines

You can perform various maintenance tasks on your own. These maintenance tasks are described in the following sections. Extensive maintenance tasks, especially on the electrical equipment must be carried out by an expert.

6.1 Tightening the V-belt

The V-belt must be re-tightened from time to time. Proceed in the following manner:

1 Switch off the machine and pull out the power supply plug.

2 Turn the ELAN 180 degrees and place it down on the handle.

3 Use the universal wrench to loosen the two hexagonal nuts SW 13 which are used to fasten the attachment.

4 Grab the ELAN at the suction muff and press the attachment forward with your thumb at the same time. Make sure that the distances between the threaded studs in the long holes are equal on both sides (Fig. 22).

5 With the attachment pushed forward, use the universal wrench to tighten the two hexagonal nuts SW 3.

6 Do not tighten the V-belt too much in order to prevent excessive wear of the V-belt and V-belt pulley.

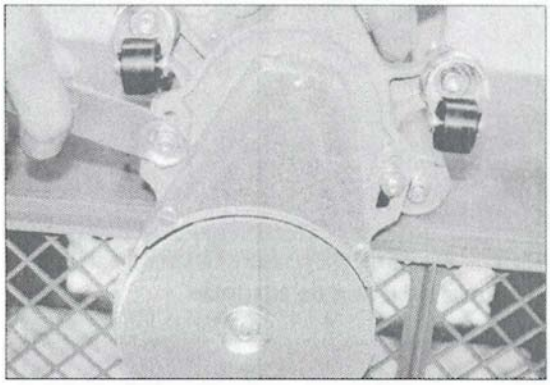


Fig. 20 Undo the two screws with which the attachment is fastened ...

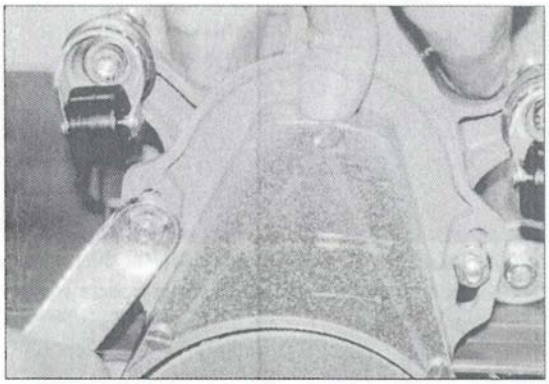


Fig. 21 ... and tighten them again while using your thumb to press the attachment forward in order to maintain the belt under tension.

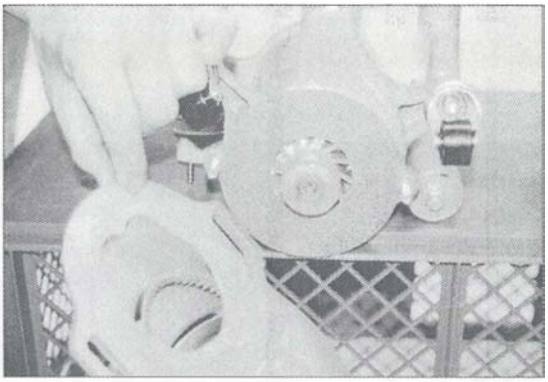


Fig. 22 Loosen the two screws with which the attachment is fastened and remove the attachment.

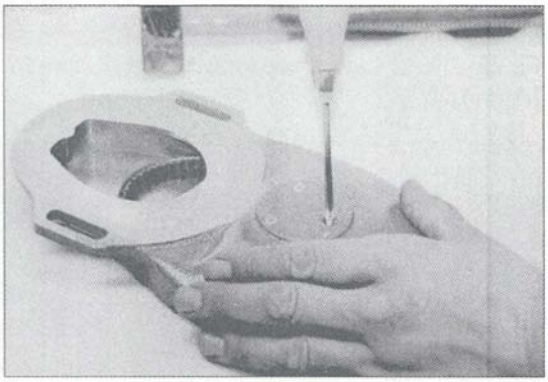


Fig. 23 With a few light (!) hammer taps, the three screws are loosened and then unscrewed. Use cross-tip screwdrivers with a continuous blade only.

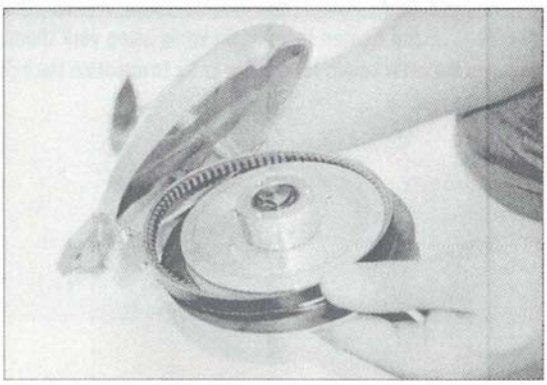


Fig. 24 Remove the V-belt, install a new one and ...

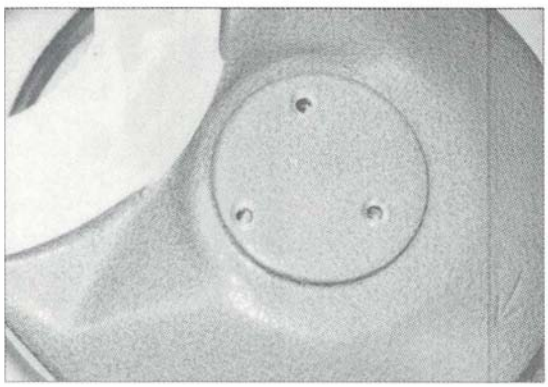


Fig. 25 ... pay attention to centered insertion of the sanding plate bearing piece during assembly, before ...

6.2 Changing the V-belt

Make sure that original LÄGLER V-belts are used:

- V-belt, art. no. 000.71.24.044, for the short attachment or for the corner attachment.
- V-belt, art. no. 000.71.51.084, for the long attachment.

The V-belt must be replaced when the V-belt cannot be re-tightened because the threaded studs for fastening the attachment are at the end of the long holes.

1 Switch off the machine and pull out the power supply plug.

2 Turn the ELAN 180 degrees and place it down on the handle.

3 Use the universal wrench to loosen the two hexagonal nuts SW 13 and the washers which are used to fasten the attachment and put these parts aside.

4 Remove the attachment from the machine and put away the attachment with the sanding disc facing downward.

5 Use a cross-tip screwdriver to loosen the three fastening screws of the sanding plate bearing piece and unscrew them.

6 Then remove the attachment from the sanding plate bearing piece.

7 Remove the worn-out V-belt from the attachment.

8 Clean the two belt pulleys and the attachment. Wear a respiratory protective mask P3 as required.

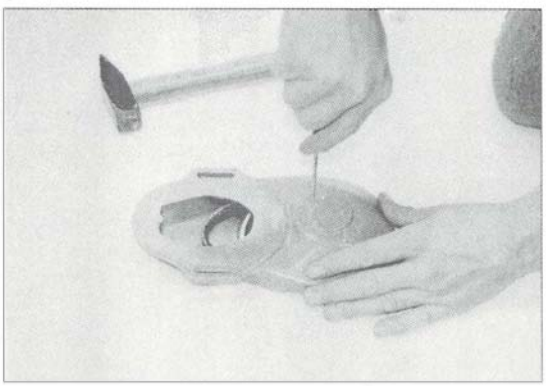


Fig. 26 ... the screws are inserted and tightened down.

9 Place the new V-belt on the sanding plate disc.

10 Push the parts into the attachment. Make sure that the sanding plate can be rotated by hand and that the V-belt was correctly installed in the attachment.

11 Rotate the hole pattern of the sanding plate bearing piece so that it fits the hole pattern of the attachment and then insert the three screws.

12 Use a cross-tip screwdriver to tighten down the three screws.

13 Then place the attachment on the machine by inserting the V-belt into the motor belt pulley first and then the attachment on the machine.

14 Then screw the hexagonal nuts SW 13 onto the threaded studs. Make sure that washers are installed under the hexagonal nuts.

15 Now tighten the V-belt as described in section 6.1.

Following a running-in period, check the belt again!

6.3 Renewing the attachment belt pulley

If, when the V-belt is being changed, it is determined that the attachment belt pulley is worn-out, you must proceed in the following manner:

1 Switch off the machine and pull out the power supply plug.

2 Dismantle the attachment from the machine in accordance with section 6.2. Afterwards, remove the sanding plate bearing piece.

3 Hold down the belt pulley firmly with your hand and unscrew the axle using a wrench SW 13 (Attention! – left thread).

4 Install the new belt pulley and rotate until tightened down firmly.

5 Re-assemble the attachment again in the reverse order of steps in accordance with section 6.2.

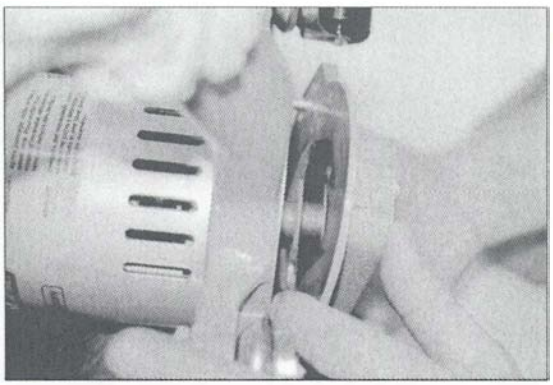


Fig. 27 The V-belt must be lying in the motor belt pulley; ...

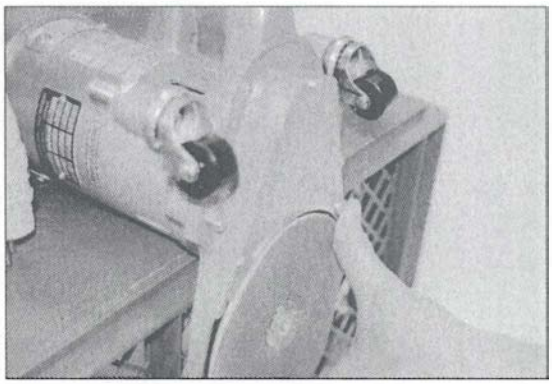


Fig. 28 ... before tightening the belt, determine whether the sanding disc is rotating the motor as well.

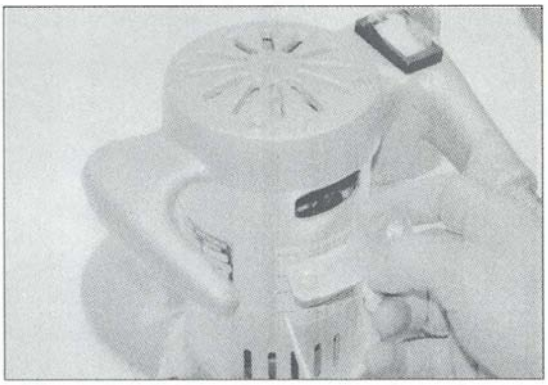


Fig. 29 Unscrew the two covers on the motor casing and ...

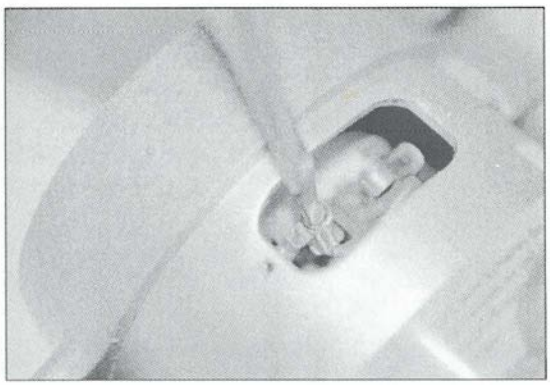


Fig. 30 ... and then, without letting any parts fall into the motor, loosen the clamping screws , before ...

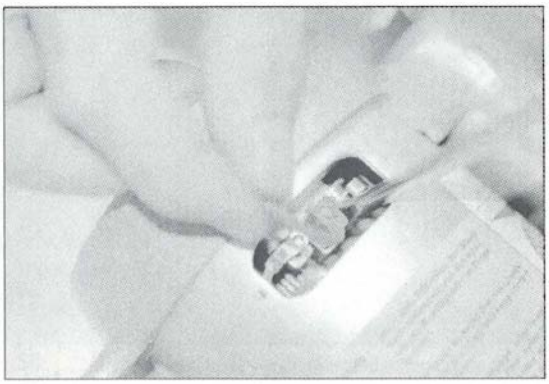


Fig. 31 you fold the tension clamp toward the right and remove the carbon brushes.

Fig. 32 With the tension clamp being held back, insert and connect the new carbon brushes.

6.4 Renewing the carbon brushes

Carbon brushes (art. no. 350.65.82.105) with safety contacts are used to prevent the collector from being damaged by completely worn-out carbon brushes. These safety contacts will switch off the machine automatically. The carbon brushes should, however, be replaced at least once a year in order to prevent damage to the machine!!

1 Switch off the machine and pull out the power supply plug.

2 Remove the two cover panels at the front or rear side of the casing tube.

3 Loosen the fastening screws of the carbon brushes.

4 Fold down the brass pressure clamp toward the rear side, remove the worn-out carbon brushes and insert the new carbon brushes.

5 Press down the carbon brushes carefully into place and tighten them down.

6 Then install the two cover panels on the casing tube.

Professional tip:
Every second time the carbon brushes are replaced, the collector should be cleaned of carbon abrasion residue by an expert electrician in order to extend the service life of the motor!

6.5 Checking the dust suction system

In order to guarantee optimal dust suction for your safety and for the safety of other persons, the following items must be taken into account:

- Always use original LÄGLER dust bags ELAN (art. no. 350.00.80.105).
- Do not use any damaged dust bags.
- Make sure the machine is correctly adjusted.
- Check the suction system for any clogged-up material or deposits.

6.6 Replacing the steering wheels

Use original LÄGLER steering wheels (art. no. 350.02.00.100) only.

1 Use the universal wrench to remove the lock nut.

2 Rotate the steering wheel completely out of the machine casing.

3 Rotate the new steering wheel into machine casing.

4 Adjust the position of the steering wheel. Rotate the lock nut onto the steering wheel and then tighten it down using the universal wrench.

5 Check the machine setting (section 6.9).

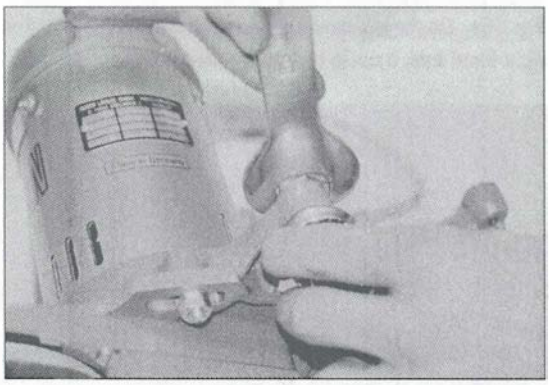


Fig. 33 Undo the lock nut and ...

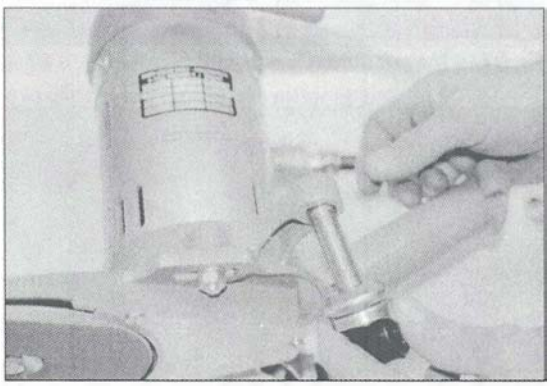


Fig. 34 ... rotate the steering wheel out of the casing.

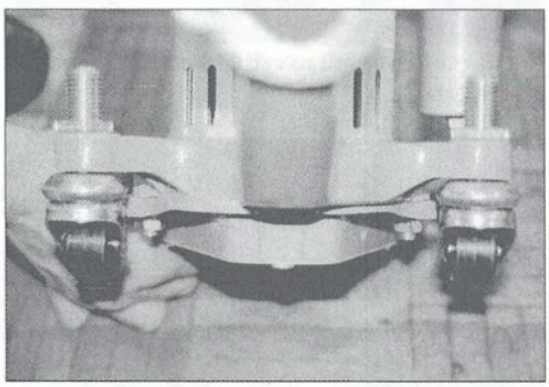


Fig. 35 Following the installation of the new steering wheel, the proper adjustment must be made (see section 6.9).

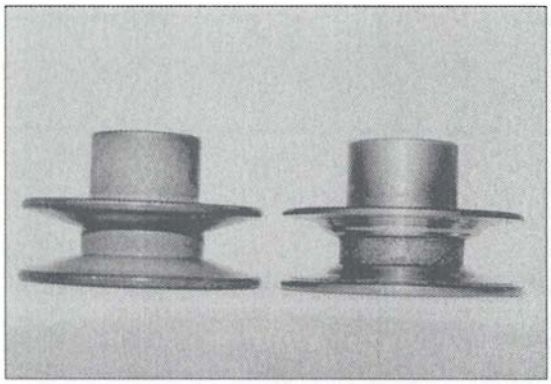


Fig. 36 On the left-hand side, a new belt pulley, and on the right-hand side, a run-in belt pulley that must be replaced.

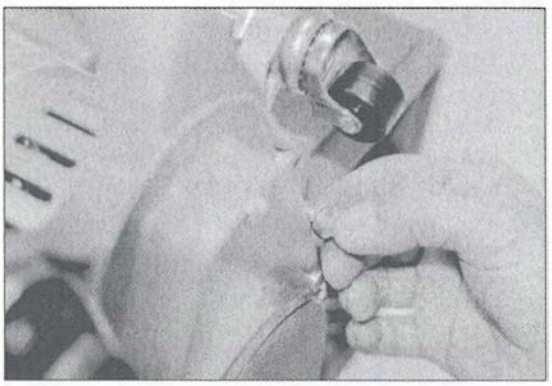


Fig. 37 The attachment is dismantled first ...

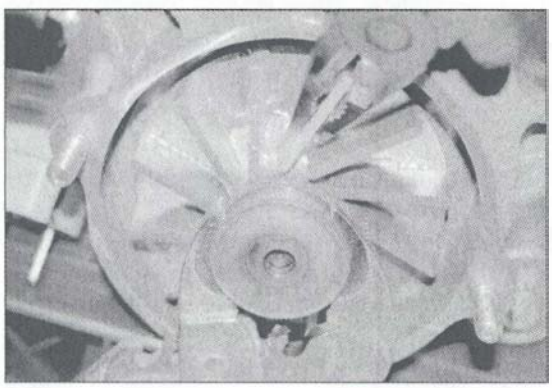


Fig. 38 ... then the belt pulley is dismantled using two pairs of pliers before ...

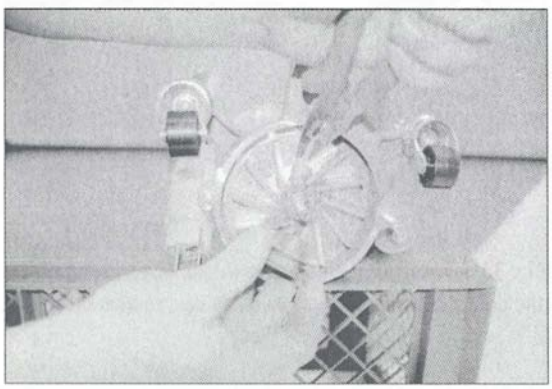


Fig. 39 ... the new belt pulley is mounted and tightened down.

6.7 Replacing the motor belt pulley

Use original LÄGLER motor belt pulleys (art. no. 350.65.05.100) only.

Due to the high motor speed of the ELAN, the motor belt pulley is subjected to increased wear. The belt pulley should therefore be replaced on time in order to prevent excessive V-belt wear.

1 Remove the attachment as described in section 6.2.

2 Remove the fan cover.

3 Then use a pair of pliers to hold the fan wheel and use another pair of pliers to unscrew the motor belt pulley from the motor shaft (normal right-hand thread).

4 Clean the contact surface of the motor belt pulley and the shaft butt end completely.

5 Rotate the new motor belt pulley onto the motor shaft.

6 Use the two pairs of pliers to tighten down the motor belt pulley .

7 Place the fan cover on the machine.

8 Then install the attachment and tighten the V-belt as described in section 6.2.

6.8 Cleaning the machine following restoration tasks

Following restoration tasks, residual material consisting of adhesive, wax or sealing lacquer may have accumulated on the belt pulley or on the attachment casing.

This can impair the running characteristics of the machine and reduce the suction performance. This kind of soiling is indicated in most cases by unsteady running, difficult starting, reduced working speed and increased development of noise. The suction performance also decreases. In this case, the V-belt must be dismantled as described in section 6.2 and the attachment as well as the flanks of the belt pulley be cleaned. Check the fan for any deposits. Wear a respiratory protective mask P3.

6.9 Adjusting the steering wheels

The position of the steering wheels will have an effect the sanding results and the aggressiveness of the machine. For rough sanding tasks, a large setting-against angle is selected. For fine sanding tasks, a flat setting-against angle. To make the necessary adjustments, the lock nut is loosened, and the steering wheel adjusted as required using the threaded device.

The high cutting speed of the machine allows you to work fast. The machine must be moved quickly without applying extra pressure. If a higher amount of removed material is demanded, the setting-against angle must be adjusted to a steeper setting.

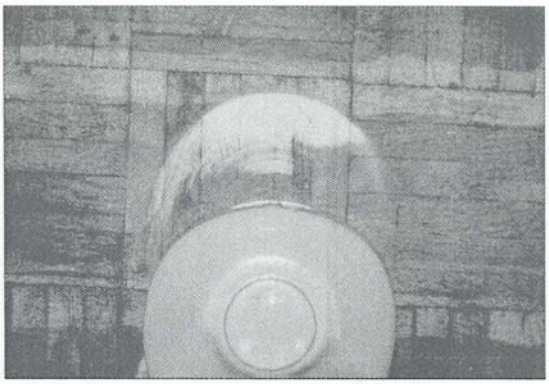


Fig. 40 Correctly adjusted, machine is sanding centrically.

Fig. 41 Sanding zone too far to the right means, ...

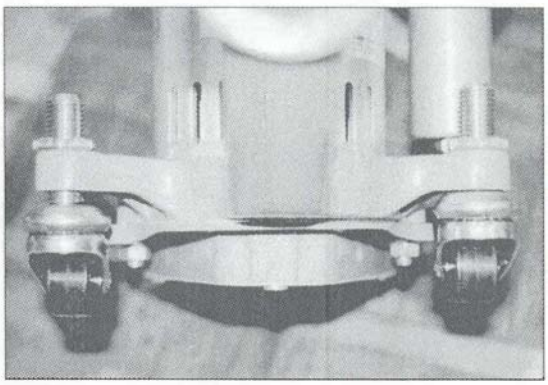


Fig. 42 ... left wheel is lower than right wheel.

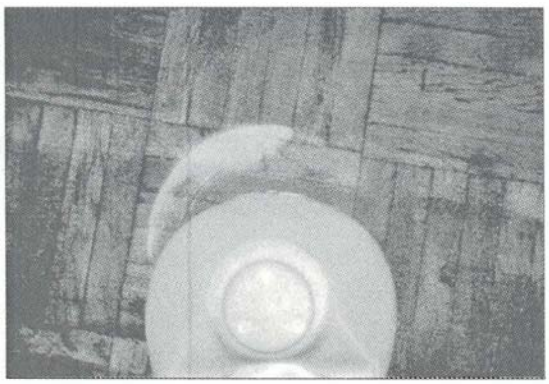


Fig. 43 Sanding zone too far to the left means, ...

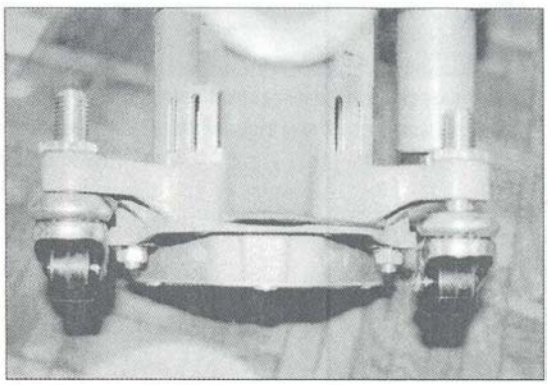


Fig. 44 left wheel is higher than right wheel.

When using other attachments (long attachment or corner attachment), the adjustment of the steering wheels must adapted according to the changed conditions in order to achieve good sanding results.

To adjust the steering wheels, proceed in the following manner:

1 Switch off the machine and pull out the power supply plug.

2 Pick up the universal wrench and loosen the lock nut of the steering wheel to be adjusted.

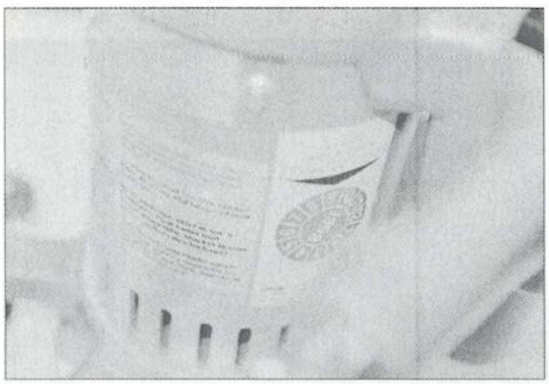


Fig. 45 The inspection label confirms the operational safety.

3 Then rotate the steering wheel into the desired direction and tighten down the lock nut again.

4 Perform a trial sanding operation and check the sanding results. If an additional adjustment is required, repeat the procedure described above.

7. Regular checkup according to safety regulations and VDE

The electrical operating equipment and machine parts must be inspected at least once a year by an expert with respect to electrical and mechanical safety, then be repaired as required, and afterwards the operational safety must be confirmed by the attachment of an inspection label on the machine.

The elements required for the dust suction system must be checked at least once a year by an expert and then be repaired as required. The functional efficiency must also be confirmed.

Make sure that only original LÄGLER spare parts are used for the maintenance tasks. You should also make sure that your customer service work is only carried out by LÄGLER or an authorised LÄGLER workshop.

The service passport on the reverse cover of these operating instructions documents when and where your was serviced.

Make sure that the maintenance tasks in the service passport (page 31) are confirmed by filling in a corresponding field with complete information including the date, stamp and signature.

8. Troubleshooting

This section shows you how to eliminate possible malfunctions. In case none of the measures mentioned here are not successful, please contact LÄGLER or your local dealer. Your local dealer is very familiar with the ELAN machine and is a highly qualified expert trained by our company. Your local dealer will provide you with the best possible advice and support.

Machine does not run

The machine does not start

- Check the power supply system and the fuse.
- Let the electrical equipment be checked by an electrician (e.g. switches, motor cable).
- Machine has been switched off by means of the thermal sensor and must cool off.

The machine tries to start but is blocked

- At low temperatures: Heat up the machine to room temperature in a warm room.
- Low voltage: Check the cable quality and cable length. Avoid the use of cable cross-sections that are too small and power supply cables that are too long. Use a transformer (art. no. 708.00.00.100) for 230 V as required.
- Check and adjust the V-belt tension.

Machine runs badly

Machine runs, but no or very little sanding power capacity

- At low temperatures: Heat up the machine to room temperature in a warm room.
- Low voltage: Check the cable quality and cable length. Avoid the use of cable cross-sections that are too small and power supply cables that are too long. Use a transformer (art. no. 708.00.00.100) for 230 V as required.
- Check and adjust the V-belt tension.
- Check the driving elements for free-running condition.
- Setting-against angle is too flat.
- Incorrect or dull sanding disc.

Machine vibrates extremely and works noisily

- Check the sanding disc for damage.
- Check the belt drive unit.
- Check the machine for clogged and deposited material.

Machine runs well, but produces dust

- Dust bag overfilled.
- Dust bag incorrectly installed or damaged.
- Check suction system for clogged material and clean as required.
- More than one sanding disc installed.
- Machine setting incorrect, readjust steering wheel.

No clean-cut sanding results

- Check sanding results and adjust the steering wheels correctly.
- Too slow machine guidance
- Additional pressure applied
- Incorrect machine guidance (no circular movements)
- Sanding disc incorrectly mounted

9. Safety precautions

Attention!
For the use of machines with electrical equipment, the following safety measures must always be observed for protection against electric shocks, risk of injury and risk of fire. Read and observe these instructions before using the machine. Keep these safety instructions in a safe place!

Keep your workplace environment tidy and orderly
Disorder at the workplace increases the risk of accidents.

Always be aware of environmental effects
Never expose an electric tool or machine to precipitation. Do not work with electric tools or machines in a damp or wet environment. Make sure your working area is brightly lit. Do not use electric tools or machines in close proximity to inflammable liquids or gases.

Protect yourself from electric shock
While working with electric tools or machines avoid physical contact with grounded metal appliances like pipes, radiators, kitchen ranges, refrigerators etc..

Keep children away
Do not permit children or any other persons to touch the machine or the power cable. Keep them remote from your working area.

Store your electric tools and machines safely
While not in use your tools and machines ought to be stowed away in dry, locked spaces, out of reach for children and unauthorized persons.

Do not overcharge or overburden your electric tools and machines
It is better and safer to work within the machines' prescribed capacity ranges.

Always use the most adequate electric tool or machine
Do not use lowcapacity machines, tools or attachment parts for heavy-duty tasks. Never use a tool or machine for a purpose for which it has not been designed.

Always wear adequate work attire
Do not wear loose clothing; do not wear bracelets, necklaces and similar loose decorations that might become entangled.

Use protective devices
When doing dust-generating work always use a breathing mask of the filter class P3.

Never use power cable for improper purposes
Do not lift or carry your tool or machine by the power cable, do not pull cable in order to disconnect plug from socket. Protect cable from heat, oil and sharp edges.

Do not work in stooped posture
Avoid unnatural or strenuous bodily postures. Make sure to always stand on solid ground and in balanced posture.

Keep your tool or machine in good shape
Keep your tool or machine clean for better and safer performance. Adhere to the maintenance instructions and change defective or worn-out parts when necessary or in recommended intervals. Check the power cables regularly and, if you detect any defects, have the defective elements replaced by a certified specialist. Also check the extension cable regularly and replace it in case of damage. Keep the handles dry and free of oil and grease.

Disconnect power plug
While machine is not in use, unplug power cable. Also do so, under any circumstances, prior to any maintenance work or gear change.

No loose tools and attachments on machine
Before switching machine on, make sure that all and any wrenches or setting fixtures are removed from machine.

Avoid inadvertent machine start
While machine is power connected never carry it with your finger close to the switch button. Before plugging in make sure that machine is switched off.

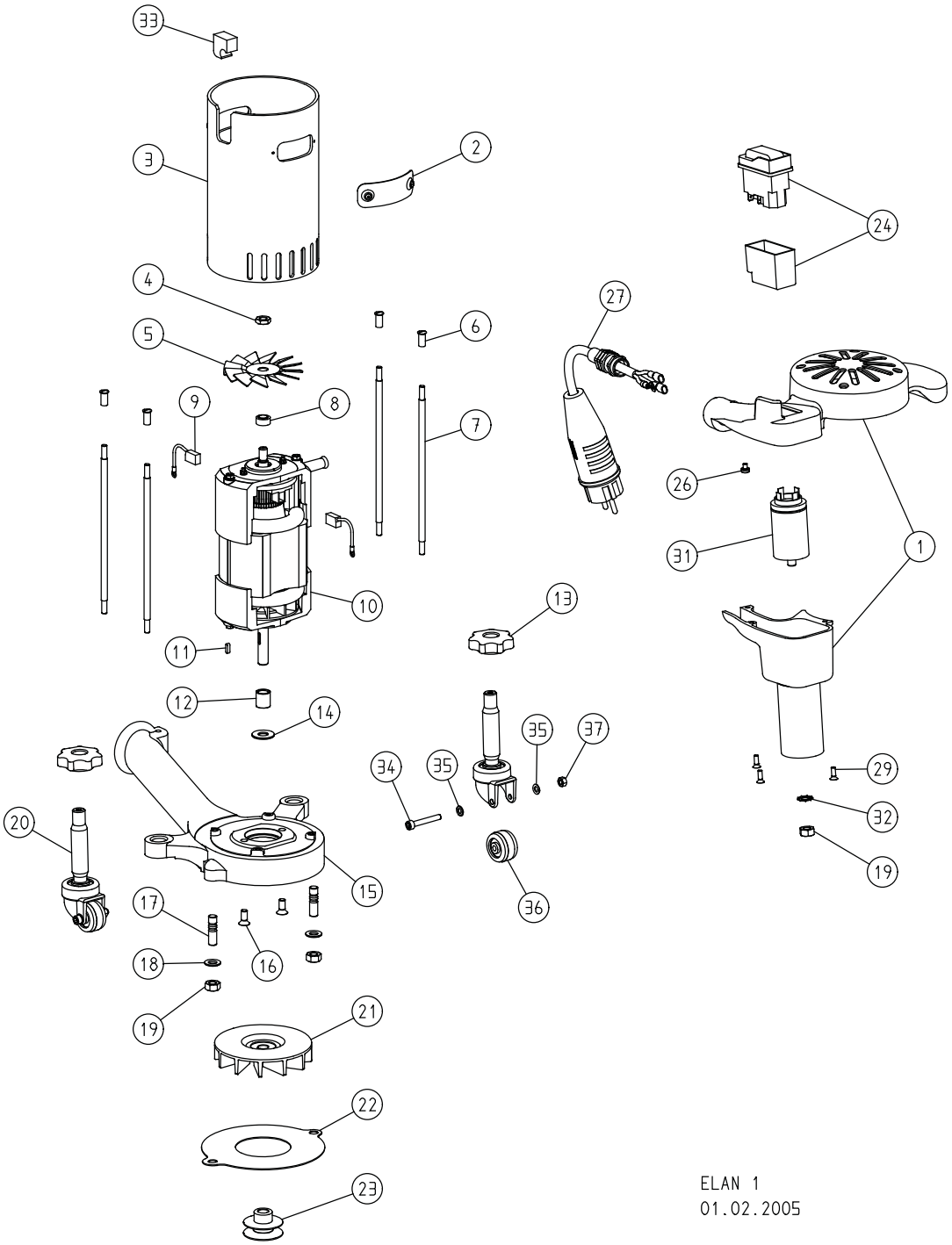
Always try to be concentrated
While working always watch what you do and what happens around you. Go about your job in a systematic and reasonable way. If you feel
refrain from using your machine.

Check your machine for visible and hidden defects
Before starting a job check your machine carefully; in particular, check its protective devices and its wearing components and make sure they are in perfect working order. Check moving components to make sure that their mobility is not impaired, that no parts are broken or fissured, that all parts are in their proper place and securely fastened; in short, make sure that all requirements for a proper functioning of the machine are fulfilled. Defective parts must be repaired or replaced by an authorized service shop, unless otherwise recommended in this manual. Defective switches must be replaced by authorized service personnel. Never use your machine while its power switch button or any other electrical components are defective or ineffective.

Important note!
For your own safety, we advise that you only use such accessories and attachments as are recommended in this manual or offered in a pertinent LÄGLER parts catalog. The use of any parts, attachments or tools other than the ones recommended in this manual may result in a risk of personal injury to the person handling the machine.

Safe-keep this manual.

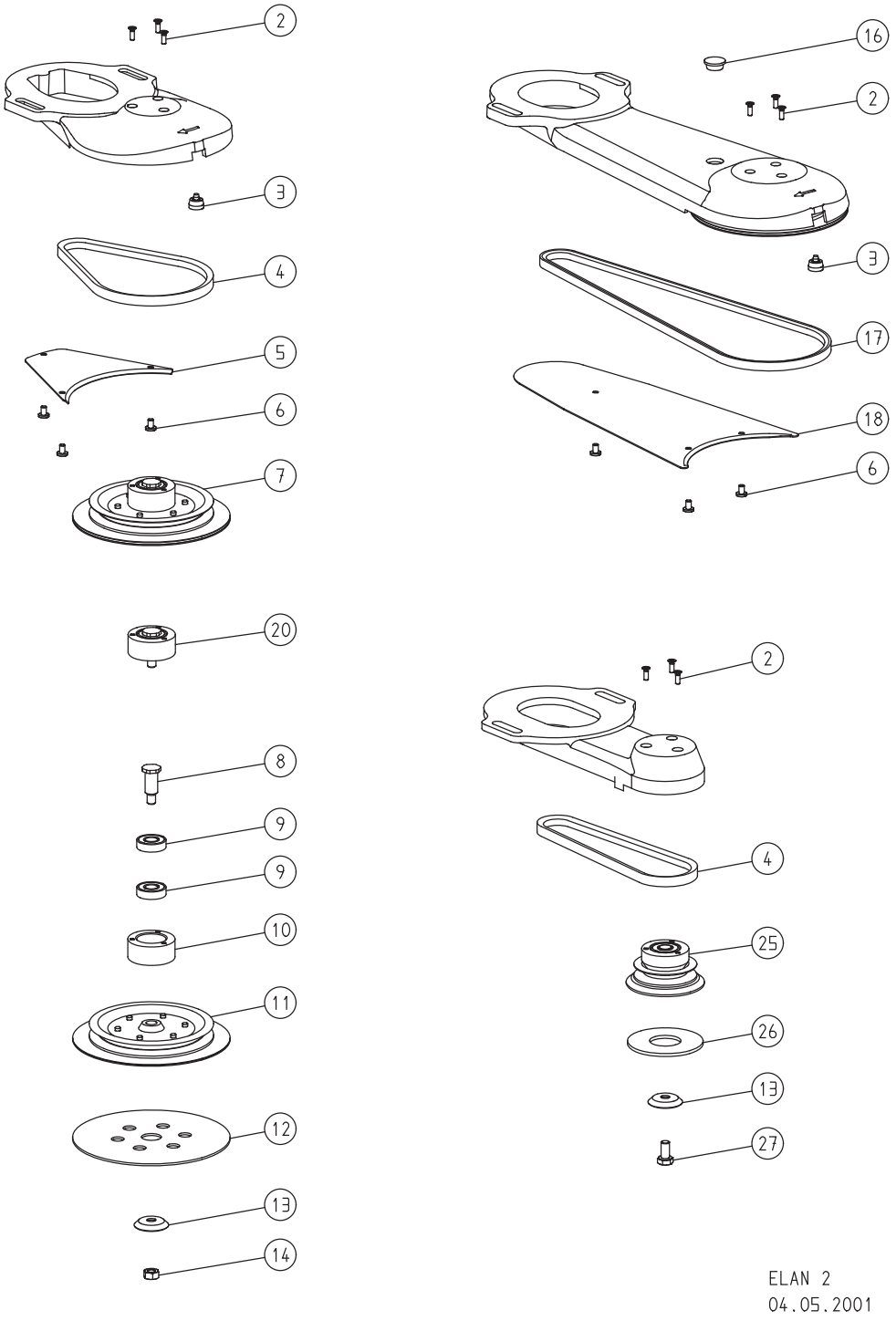
Observe any pertinent regulations and recommendations issued by the organizations and supervisory authorities of your trade.



ELAN 1
01.02.2005

Pos.	Part no.	Description
1	350.05.00.100	Handle complete
	352.05.00.100	Handle complete, USA
2	350.05.15.100	Cover complete
3	350.05.10.100	Casing tube, complete
4	0439.1008.800	Nut, left-handed thread
5	350.65.02.100	Fan blade
6	000.50.14.051	Sleeve nut
7	350.01.03.105	Spacer bolt
8	350.65.04.105	Spacer ring
9	350.65.82.105	Carbon brush ELAN
10	350.65.00.200	Universal motor, 230 V / 50 + 60 CPS
	352.65.00.200	Universal motor, 110 V / 50 + 60 CPS
11	6885.0303.010	Key
12	350.65.06.105	Spacer bush
13	320.05.11.205	Star grip (locknut)
14	000.10.10.104	Washer
15	350.01.01.100	Fan housing
16	0965.1006.814	Screw
17	0939.1008.020	Stud
18	0125.1008.000	Washer
19	0934.1008.000	Nut
20	320.05.00.200	Guide roller, complete
21	350.65.03.100	Fan wheel
22	350.01.02.100	Fan cover
23	350.65.05.100	Motor pulley
24	000.65.60.255	Switch 230 V / 50 + 60 CPS with dust cover
	000.65.60.155	Switch 110 V / 50 + 60 CPS with dust cover
	000.65.62.160	PVC cap with frame of switch
26	7985.4004.006	Screw
27	000.65.43.151	Motor cable 3 x 1.5 mm²
	000.65.43.153	Motor cable 3 x 1.5 mm², USA
29	7500.1004.812	Screw
31	000.65.18.010	Interference-free capacitor
32	6797.1008.900	Washer
33	350.05.31.100	Sealing rubber
34	0912.1005.035	Screw
35	0125.1005.000	Washer
36	320.05.09.305	Wheel
37	0980.1005.000	Nut

ELAN 1 01.01.2010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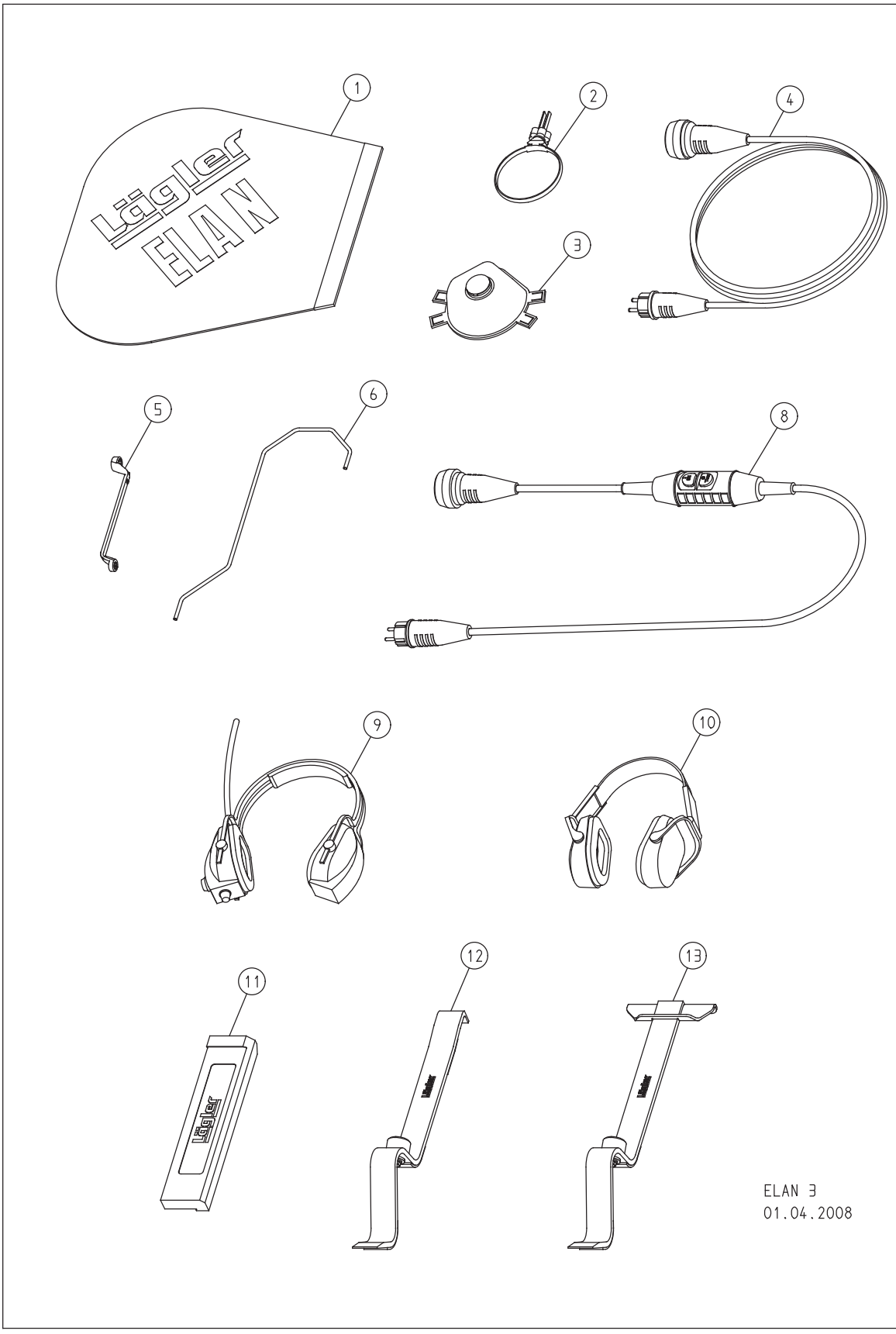
ELAN 2
04.05.2001

Pos.	Part No.	Description
	350.03.50.100	Short attachment ELAN, complete
2	7500.1004.812	Screw
3	350.03.25.100	Wall protecting roller, complete
4	000.70.10.046	V-belt
5	350.03.02.100	Cover, short
6	000.10.12.051	Screw
7	350.03.52.100	Steel sanding disc, complete
8	350.03.12.105	Sanding disc axle
9	6001.0012.202	Ball bearing
10	350.03.11.100	Bearing ring
11	350.03.56.100	V-belt pulley, complete
12	350.03.35.205	Velcro disc 150 mm
	350.03.34.105	Felt disc 150 mm
13	350.03.16.100	Paper tensioning disc
14	0934.1008.000	Nut
	350.04.50.100	Long attachment ELAN, complete
16	000.40.30.017	Plug
17	000.70.10.085	V-belt
18	350.04.02.100	Cover, long
20	350.03.48.100	Bearing ring, complete
	350.08.00.100	Corner attachment ELAN, complete
25	350.08.10.100	Steel sanding disc 75 mm, complete
26	350.08.13.105	Felt disc 75 mm
27	0933.1008.016	Screw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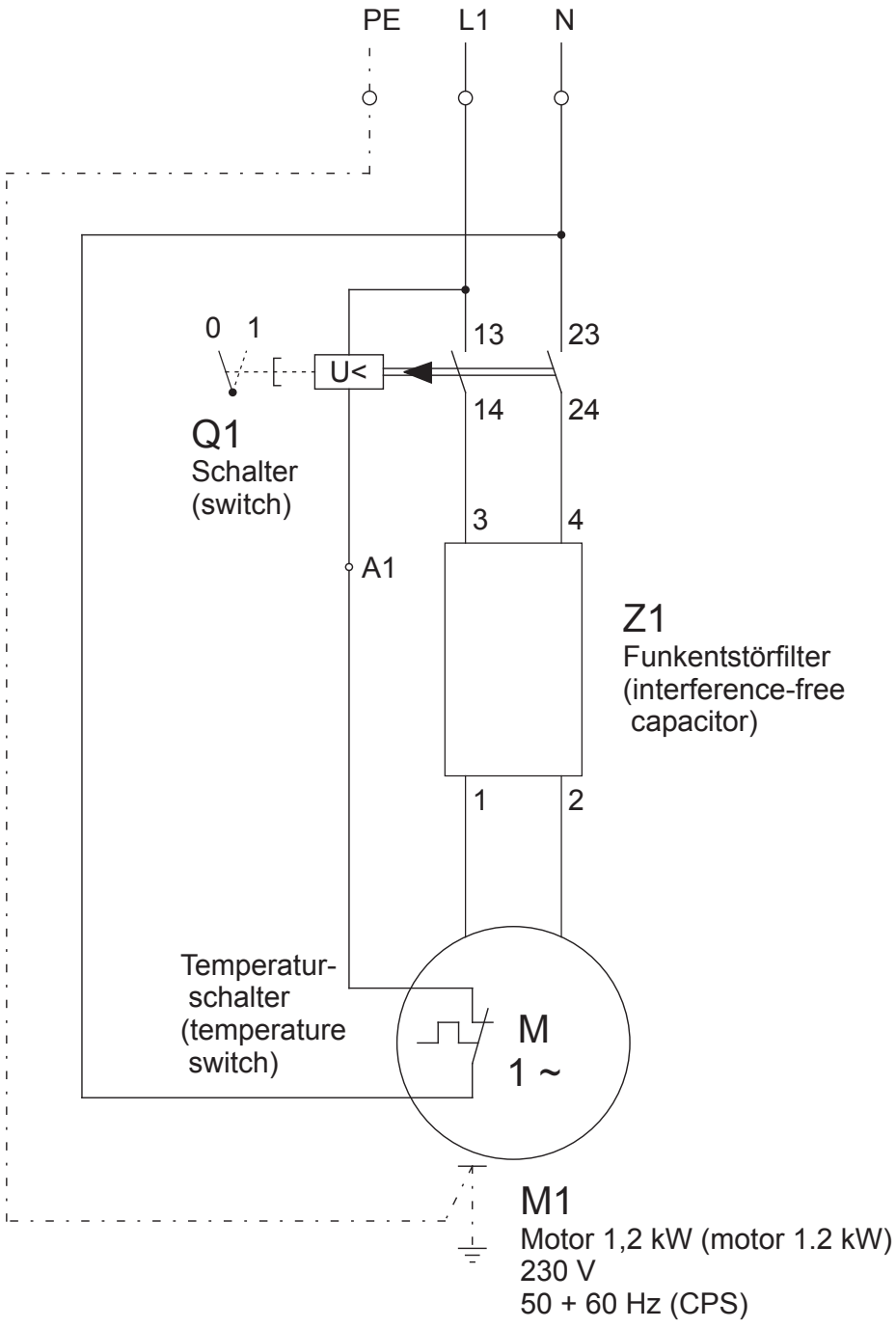
Lägler
ELAN
ELAN 3
01.04.2008

Pos.	Part No.	Description
1	350.00.80.105	Dust bag ELAN
2	000.01.40.110	MultiClip
3	000.01.20.010	Protective mask P3
4	000.65.53.151	Extension cable 3 x 1.5 mm², 10 m long
5	000.95.21.103	Closed mouth wrench
6	350.01.05.200	Dust bag clamp
8	000.01.65.020	Safety switch PRCD-S (for german mains supply)
9	000.01.10.011	Foldable earmuff type MUSIMUFF with FM radio
10	000.01.10.021	Foldable earmuff type POCKET
11	701.10.00.100	Impact tool
12	702.00.00.200	Parquet layer tool ZUGEISEN, small
13	703.00.00.200	Parquet layer tool ZUGEISEN, broad

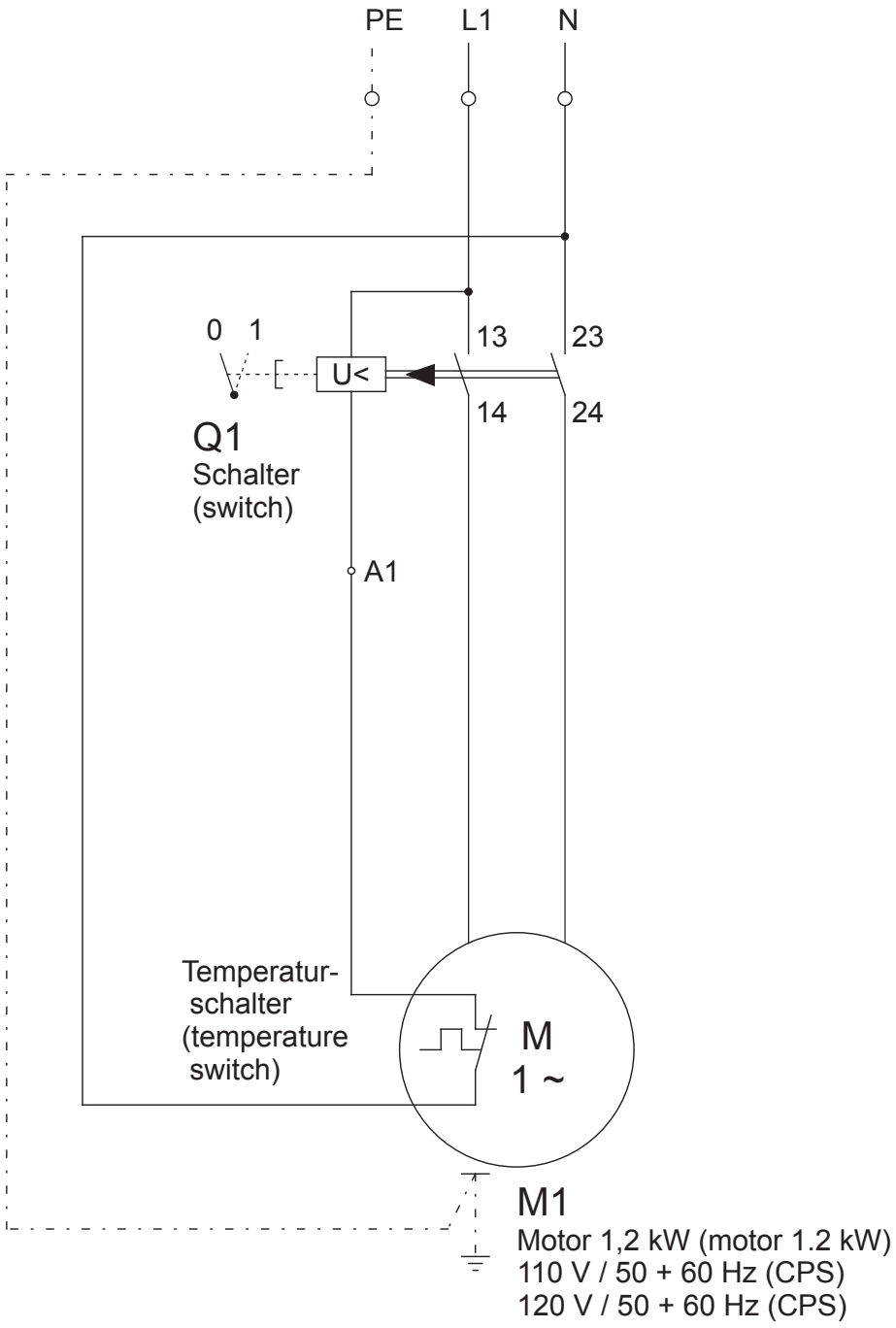


01.04.2008

ELAN:	Universalmotor (universal motor)	1,2 kW (1.2 kW) / 230 V / 50 + 60 Hz (CPS)

EUGEN LÄGLER GMBH Im Kappelrain 2 D-74363 Güglingen-Frauenzimmern	Telefon Phone : +49 - 7135 - 98 90 - 0 Fax: +49 - 7135 - 98 90 - 98	E-Mail: info@laegler.com Internet: http://www.laegler.com

C I R C U I T D I A G R A M



01.04.2008

ELAN:	Universalmotor (universal motor)	1,2 kW (1.2 kW) / 110 V / 50 + 60 Hz (CPS) 1,2 kW (1.2 kW) / 120 V / 50 + 60 Hz (CPS)

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Internet: http://www.laegler.com

N O T E S

Service passport

Note the serial number and the model year of your machine on the back of this operating manual (see type plate)! Otherwise the service passport will not be valid!

This service passport is a document. Make sure that all the tests and maintenance work carried out on the machine is confirmed by the servicing company here.

Date of test and service: ______________ Signature and stamp	Date of test and service: ______________ Signature and stamp	Date of test and service: ______________ Signature and stamp
Date of test and service: ______________ Signature and stamp	Date of test and service: ______________ Signature and stamp	Date of test and service: ______________ Signature and stamp
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EC Declaration of conformity

The design of the edge-, stair- and corner-sanding machine **LÄGLER ELAN**, for serial no. please see type plate, is developed, constructed and built according to the below mentioned EC regulations.

Machinery (2006/42/EC from 17.05.2006)
Electrical equipment (2006/95/EC from 12.12.2006)
Electromagnetic compatibility (2004/108/EC from 15.12.2004)

The following harmonized standards have been used:

DIN EN ISO 12100-1: Safety of machinery - Basic concepts, general principles for design - Part 1
DIN EN ISO 12100-2: Safety of machinery - Basic concepts, general principles for design - Part 2
DIN EN 60204-1: Safety of machinery - Electrical equipment of machines - Part 1
DIN EN 55014-1: Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1
DIN EN 55014-2: Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2
DIN EN 61000-3-2: Electromagnetic compatibility (EMC) - Part 3-2: Limits
DIN EN 61000-3-3: Electromagnetic compatibility (EMC) - Part 3-3: Limits

The following documents are available:

- Master plan of the machine including circuit diagrams.
- Complete specified plans to make sure the machine is in accordance with major health and safety rules.
- List of basic regulations, specifications and EC guidelines used for the design of the machine.
- Description of the solutions to avoid dangers that could be caused by the machine.
- A copy of the operating instructions.

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Volker Wörner

Dipl.-Ing. (FH) Volker Wörner, design engineer
Person responsible of documents
Eugen Lägler GmbH, Maschinenbau
Güglingen-Frauenzimmern, dated 01.01.2010

ELAN

Serial number: _____

Year of manufacture: _____

AUS CAN GB IRL NZ USA

Lägler®

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