

## GOOD TO KNOW: THE SANDING DRUM

### Function

The sanding drum is one of the most important parts of a sanding machine. It transfers the machine's performance to the sand paper and consists of an aluminium-core as well as a layer of rubber adjusted to the sanding process.

The sanding drum's condition and quality are essential to the sanding result. Only a perfect sanding drum will lead to a high quality floor.



**Pic. 1** Production of the LÄGLER® sanding drums

### Attention!

If a sanding drum is **older than 4 years** (rubber has hardened), worn out or damaged it will have to be replaced. Otherwise the sanding result will be impacted by the faulty sanding drum and severe mistakes can occur while sanding.

You might ask yourself if an aftermarket / recovered sanding drum presents a smart alternative to LÄGLER®'s original sanding drum.

### What does this mean for the craftsman?

The market offers these aftermarket / recovered sanding drums, but they do **not** come from LÄGLER®. Damage to floors caused by these drums can be tremendous. This is why regular inspections and replacement of worn-out sanding drums in poor condition are recommended.

## PROBLEMS WITH AFTERMARKET / RECOVERED SANDING DRUMS

On occasion we receive warranty claims for drums not performing to the exacting LÄGLER® Standard. All of the problems are because the drum was aftermarket / recovered. **NON LÄGLER® drums can cause serious problems.**



**Fig. 2** Aftermarket / recovered sanding drum

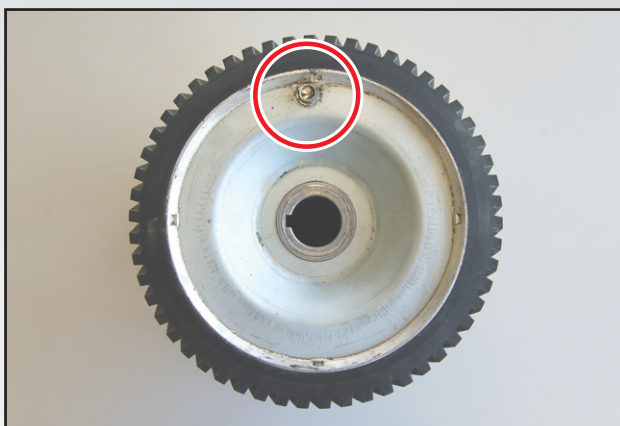
### Issues that may come with aftermarket / recovered sanding drums

- Aftermarket / recovered sanding drums are not balanced properly and that may cause waves.
- Aftermarket / recovered sanding drums are not the same shape as original LÄGLER® drums. The flat shape causes less pressure per square inch.
- The risk of side cuts is especially high.

- An unbalanced drum will cause chatter marks and waves due to increased vibrations. Which can lead to machine damage.
- NON LÄGLER® drums often have a damaged core. This also causes waves and chatter marks on the sanded surface as well as other damages.



**Fig. 3** Waves caused by a NON LÄGLER® sanding drum



**Fig. 4** Sanding drum body with an old balancing weight

### Identifying features

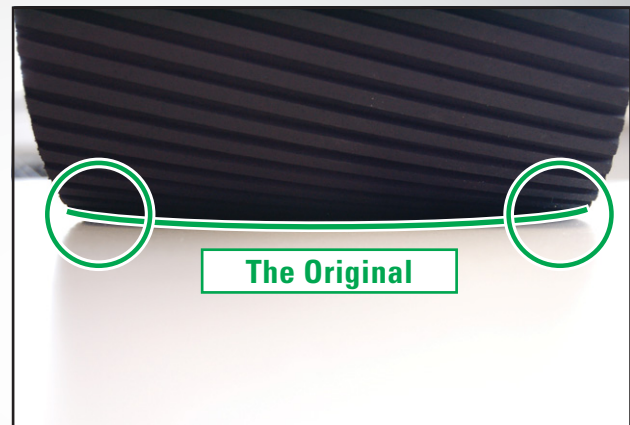
An NON Original sanding drum can usually be recognised by its poor quality rubber layer, used aluminium core and its old balancing weights.

## SHAPE OF THE LÄGLER® SANDING DRUM

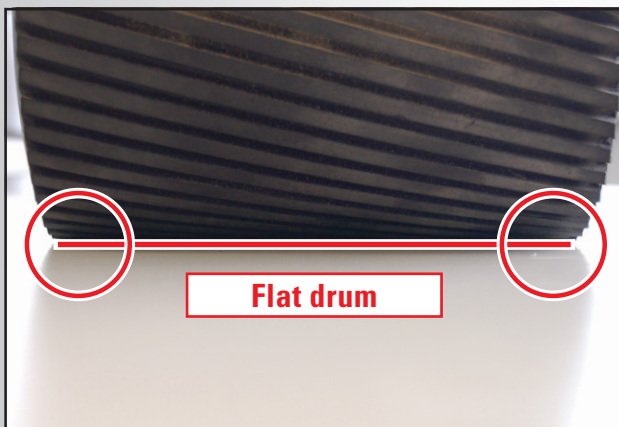
When looking at a new LÄGLER® sanding drum it is easy to miss that the drum's diameter is larger in the middle than it is at the edges. However, this shape is crucial to the quality of the sanded surface. Contrary to the LÄGLER® sanding drum, NON Original sanding drums have a flat shape.

### Why is the sanding drum shaped like a football?

A wood floor is never even. A **flat sanding drum** will cause side cuts. In order to prevent this, the sanding drum's diameter has to decrease from the middle to the outside – it has to be **shaped like a football** in order to feather at the edges.



**Pic. 5** Shape of a LÄGLER® sanding drum



**Pic. 6** Flat shape of a recovered sanding drum

### How does the flat drum's shape impact the result?

While overlapping sanding paths, a change in elevation occurs.

This, however does not give you a flat floor.

### Differences

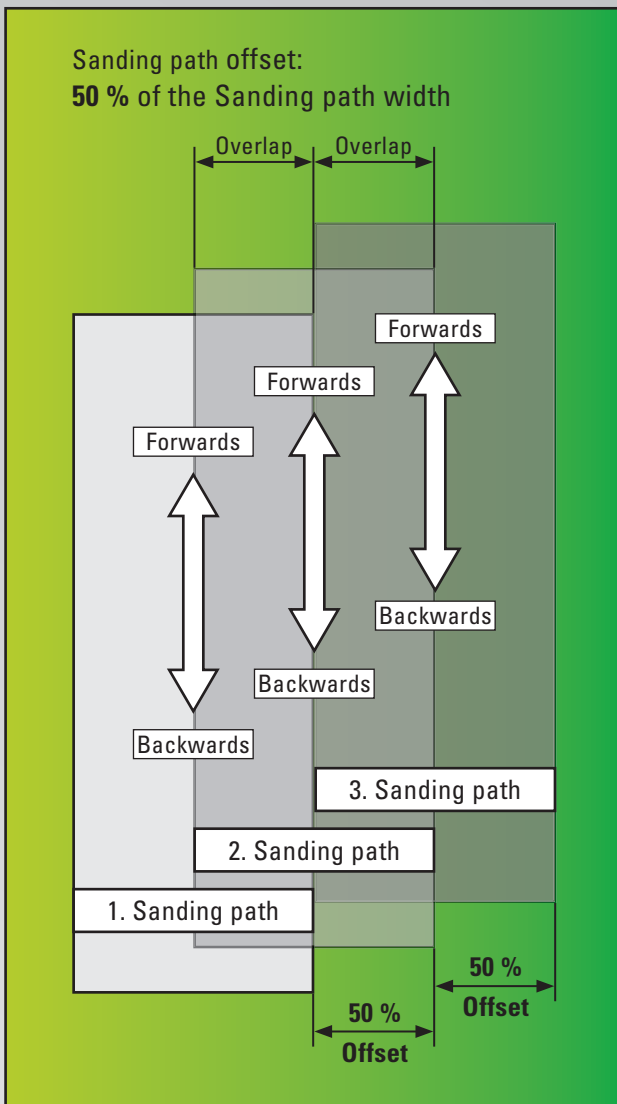
If both sanding drums are placed on an even surface, the edges of a NON Original sanding drum will always touch the surface.

The original LÄGLER® sanding drum on the other hand is convex and therefore the edges do not touch the surface allowing for more precise sanding.



**Pic. 7** Side cuts, caused by a flat sanding drum

## IMPACT OF THE SANDING PATH OFFSET AND THE WHEEL ALIGNMENT



**Pic. 8** The ideal Offset is 50 %

### Important: the sanding path offset

You can optimise the overlap by using the ideal offset of **half a sanding drum's width**. Each sanding path is sanded two times.

This way, you will get an even surface.

### Mind the wheel alignment!

The machine has to be setup, so she sands flat.

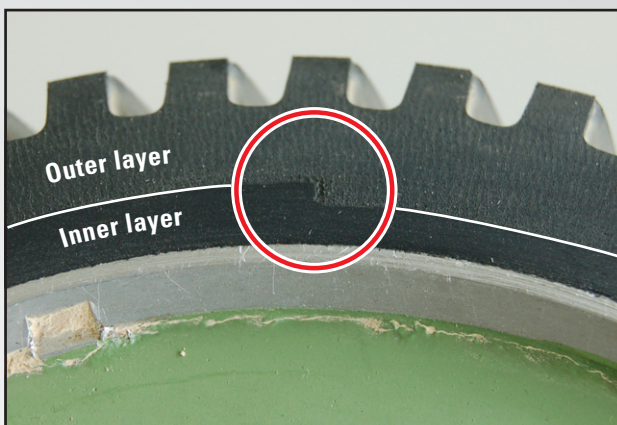
If the wheels are aligned incorrectly, the sanding drum will be slightly tilted to one side.

The pressure will rise on this side and there will be a higher danger of side cuts.

These consequences will multiply with an **after-market / recovered** drum.

Therefore the HUMMEL® will not sand correctly.

## AFTERMARKED / RECOVERED DRUMS



**Pic. 9** Rubber layer with overlap (see red circle)

### The rubber layer is manufactured badly.

A sanding drum's rubber layers consist of an inner layer that connects to the sanding drum's aluminium core and an outer layer with a custom profile. LÄGLER® applies the inner layer at an even thickness without overlapping in order to prevent vibrations.

The layers of an aftermarket / recovered drum overlap. The increased hardness at this spot causes vibrations and therefore waves.

## AFTERMARKET / RECOVERED DRUMS

### Worn out bores

We at LÄGLER® do not reuse old sanding drums, as the bores tend to wear out. When recovering the sanding drum the bore would have to be replaced completely in order to guarantee a balanced drum. This makes recovery too costly. That's why we do **not** recommend that.

Complaints are to be expected!



**Pic. 10** Aftermarked / recovered drum with a worn out bore for the sanding shaft

## AFTERMARKET / RECOVERED DRUMS

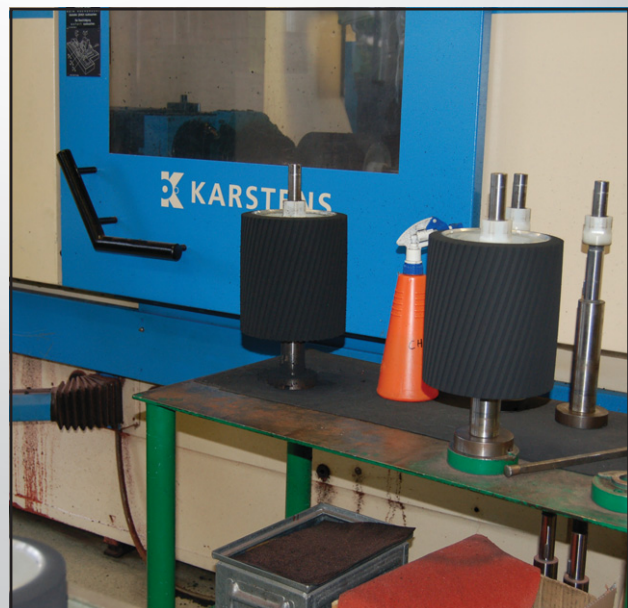
### Missing balance

We at LÄGLER® balance our sanding drums precisely prior to delivery!

This is done to guarantee a perfectly round sanding drum as well as perfect sanding results. Special screws are used as balancing weights and placed on the sanding drum's lid.

When recovering a sanding drum, balancing is required due to the newly applied rubber layers. However, the aftermarket / recovered drums on the market that still had the old balancing weights were out of balance.

This leads to severe problems on the floor.



**Pic. 11** LÄGLER® sanding drums before balancing

**Go to LÄGLER® Direkt 04 / 2011**

## ISSUE: MISSING FOOTBALL SHAPE DUE TO ABRASION



**Pic. 12** Worn out sanding drum profile

### A worn out sanding drum profile

Due to continuous use of a sanding machine the sanding drum's profile will wear out over time. The sanding drum's shape will flatten. The larger contact area will increase the risk of sanding flaws and will reduce the aggression by up to 20 %.

If you use your sanding machine on a daily basis we recommend that you replace your sanding drum **every four years (do not have them recovered!)**.

## THE ORIGINAL LÄGLER® SANDING DRUM



**Pic. 13** LÄGLER® sanding drum with a standard rubber layer.

### Advantages of the original

We guarantee the consistent high quality of our sanding drums by producing them at LÄGLER®. With our high tech computer controlled storage system we can quickly supply spare parts world wide.

Of course, our sanding drum combined with a well-maintained HUMMEL® and the right training (PST®) will lead to better results.

## THE HARD LÄGLER® SANDING DRUM



**Pic. 14** LÄGLER® sanding drum with a hard rubber coat

### A hard sanding drum for special floors

The wood surrounding a branch or knot is always harder as the branches' fibres – much like an end grain cut - are standing orthogonally to the wood's surface. Therefore these spots remain elevated after sanding them with a regular sanding drum, which leads to an uneven wood floor.

The best way to sand wood floors with knots, we recommend the use of a sanding drum with a hard and football shaped rubber.

## ACTUALITIES: PST® INTERNATIONAL

### NWFA Wood Floor of the Year 2013

Wood floors sanded with LÄGLER® machines often win awards. For example at the NWFA Convention, presented by Hardwood Floors Magazine, once a year.

This award ceremony is internationally recognized.

In the following categories our customers received an award:

- Best CNC- / Laser-Cut
- Best Limited Species
- Best Restoration



**Pic. 15** Yantarnaya Pryad-Parquet  
- Best CNC- / Laser-Cut



**Pic. 16** Czar Floors - Best Limited Species

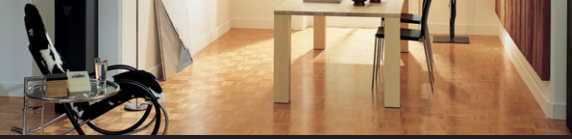


**Pic. 17** Yantarnaya Pryad-Parquet  
- Best Restoration

### LÄGLER® Congratulates the winners!

We are happy for our customers and proud that you choose LÄGLER® machines for such great projects.

**Hardwood Floors Magazine**



## HELLO!

### Welcome to the LÄGLER® Team: Miniar Mhadbi and Frank Floß

Miniar Mhadbi joined the team in the marketing department in February.

Also new in the team: Outside salesman Frank Floß, North and East Germany.

We wish them a long and successful time here at LÄGLER®!



Pic. 18 Miniar Mhadbi



Pic. 19 Frank Floß

## FAREWELL!

### Goodbye Bernd!

A long-time employee at LÄGLER® has well-deservedly retired. Bernd Späth has been working at LÄGLER® since 1963 and was a hard working and loyal colleague who celebrated his 50th company anniversary. He started his apprenticeship at the age of 14 under the guidance of company founder Eugen Lägler and remained loyal to the company until his retirement. In the last years he worked with our high tech storage system.

Over the last year Bernd trained his replacement. LÄGLER® continually trains inside and outside to benefit all our customers.

Everyone at Eugen Lägler GmbH:  
We wish you all the best and a happy retirement!!!



Pic. 20 LÄGLER® congratulates the young retiree Bernd Späth