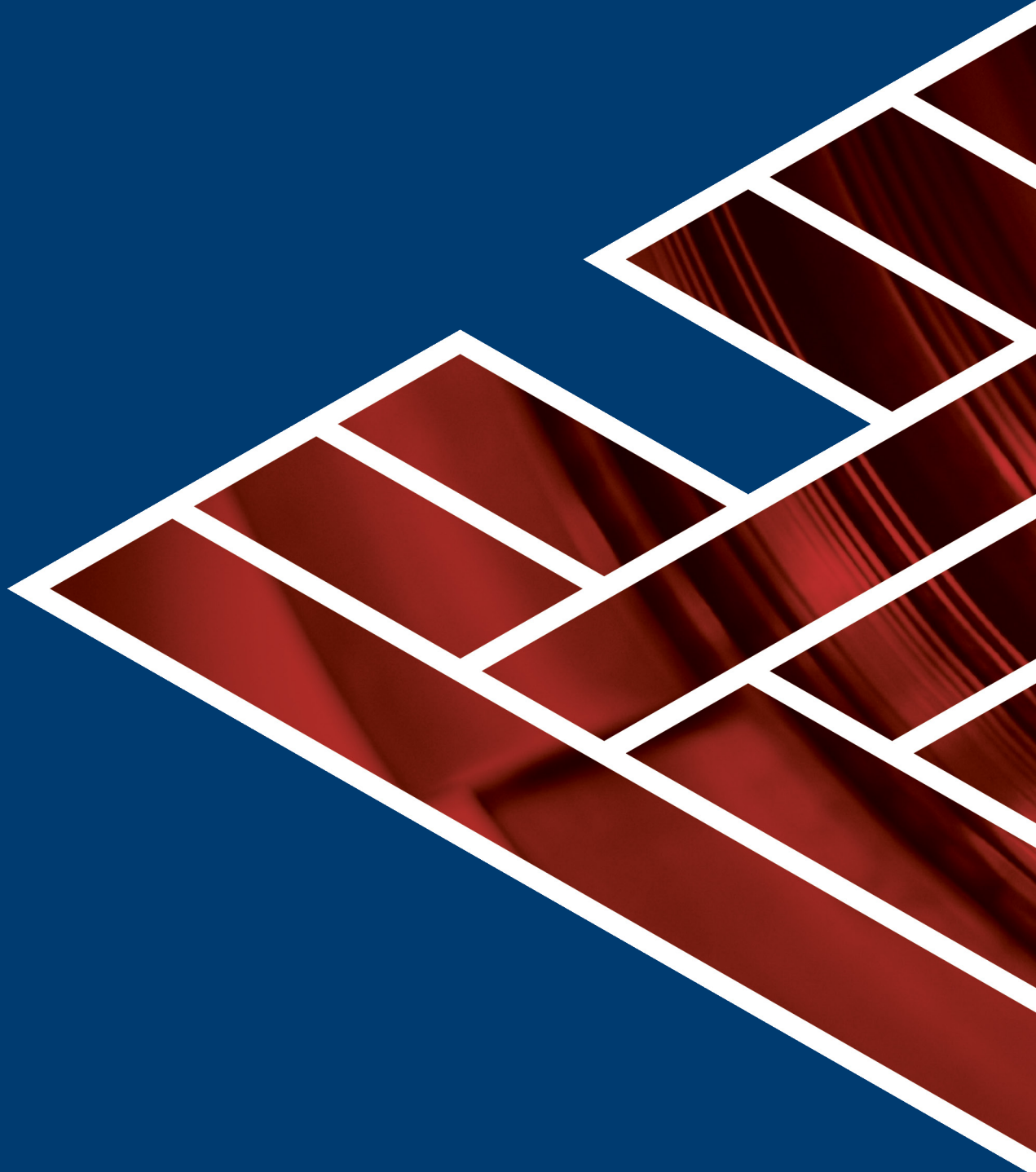




HARDY

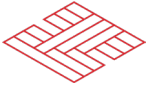


MADE IN LIVERPOOL



HARDY UK LIMITED
FAULT FINDING

TECHNICAL GUIDE



HARDY UK LIMITED

FAULT FINDING

Choosing Hardy blades gives our customers peace of mind that our consistent high quality means faults and issues rarely occur and when they do it is seldom a blade fault but instead often due to outside influences.

Fault finding is a complex procedure that can be minimised by following good working practices, housekeeping, maintenance and good raw material. The following guide will point out some common faults that tanneries experience when shaving or fleshing.

Whilst we cannot list every possibility or cause. This guide may help to point out one or more issues that you may be facing during production.

SHAVING

PROBLEM: RIBBING/CHATTER MARKS

The most common cause of ribbing marks on the leather is due to issues at the re-blading operation or issues with the grinding or machine set-up. There are a multitude of issues both simple and complex, the following is a summary of the most common reasons.

POSSIBLE CAUSE:

- **Incorrect re-blading, balancing, grinding-in**
– See Hardy technical guides for instructions
- **Painting of the blades** – this causes issues with the cutting edge and grinding wheel
- **Worn bearings** – cylinder, motor, grinding, roller
- **Machine faults** – grip roller, poor condition or alignment, motor power, hydraulic power
- **Grinding faults** – initial set-up, compatibility of grinding wheel, grinding carriage, under/over ground knife, uneven grinding
- **Outer forces** – vibrations, check all the machine for vibrations including the flooring. Outside sources from within the factory can cause this issue
- **Material** – Chemicals, moisture content, amount being shaved, tanning changes

- **Feed speeds** – cylinder, grip roller, grinding wheel, feed roller
- **Cylinder** – sag, blade configuration
- **Housekeeping** – debris build up, rust
- **Blade life** – the blade may have reached the end of its working life (approx. 5mm from cylinder to the top of the blade).

PROBLEM: LINING ON THE LEATHER

POSSIBLE CAUSE:

- **Housekeeping** – hardened leather deposits on the back of the blade
- **Debris on the leather**
- **Chipped blade** – scar in the skin, foreign bodies entering the machine.

PROBLEM: SCRAPING

POSSIBLE CAUSE:

- **Blunt knife** – check grinding set-up. Allow the grinding to traverse, grinding lightly until the blade is re-sharpened evenly
- **Water content** – check the moisture content within the leather (standard 55%)



PROBLEM: RUST

Note: It is important that the blades are not painted to prevent rust. This may impact on the shave quality.

POSSIBLE CAUSE:

- **Poor housekeeping** – poor cleaning, exposure to the elements
- **Improper storage** – keep the blade box sealed where possible. See 'Care and Maintenance' document for further details.

PROBLEM: UNEVEN THICKNESS

POSSIBLE CAUSE:

- **Chamfered roller**
- **Amount of material being shaved** (check manufacturers guide)
- **Blunt knife**

PROBLEM: DAMAGE TO THE BLADE

POSSIBLE CAUSE:

- **Dropped/Impacted cylinder** – this can be from the point of re-blading through to final installation of the cylinder
- **Re-blading issue**
- **Grinding wheel** – wrong type, wound in too much before grinding, aggressive grinding
- **Foreign body** – unwanted objects entering the machine
- **Wrap around** – the gap between the blade and fan is too great, allowing the hide/skin to be wrapped around the blade. Lift the fan as close as possible without hitting the blade.

OTHER NOTABLE POINTS

Moisture in the material

- **Too dry** – will take the edge off the blade
- **Too wet** – will have trouble feeding the material into the machine

Check the leathers water content regularly to be sure it does not affect the quality of your shave.

Reverse Grinding

- if you choose to reverse grind, reduce the amount ground and speeds to a minimum and be sure to revert the grinding wheel rotation back otherwise the life of the blade will be considerably shortened.

Blunt Knife

- This can be due to a number of reasons mainly being centred on the grinding set up, moisture content and chemical processes
- Double shaved areas (mid cylinder) may be thinner
- Teasing on the fibres (may also be a deposit on the blade).

Reduced Blade Hardness

- Grinding – if a Hardy blade is ground too hard or with the wrong type of wheel then it may cause tempering to the blade which can reduce the hardness of the blade and in extreme cases damage the blade beyond repair. This can lead to other issues such as ribbing marks.
- If you believe that the blade has been overground during any of its grinding processes, allow the machine to lightly grind the blades until such a time as the blades begin to recover their edge and achieve the perfect shave again.

FLESHING

Problems when fleshing are less likely to directly affect the piece of leather. Therefore the below is a general guideline of basic good practice.

All machining and re-blading tasks should be performed by fully qualified and competent persons.

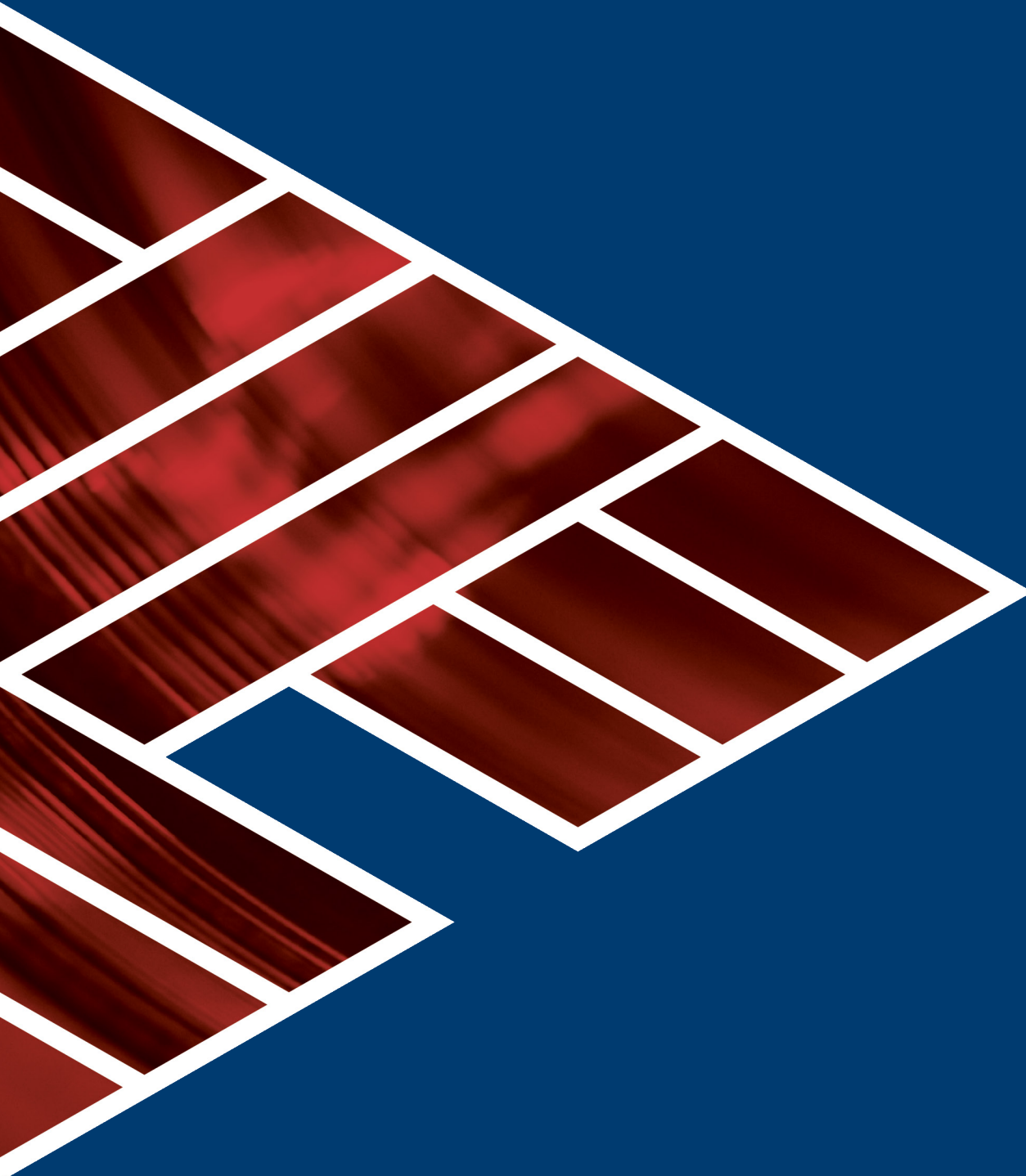
MACHINE:

- Good housekeeping
- Regular maintenance
- Correct grinding block and grinding set-up
- Quality re-blading practices
- Feed-in speeds and pressure
- Rollers – use correct rollers depending on the fleshing process

MATERIAL:

- Correct moisture
- Foreign bodies on raw material (thorns, scaring etc.)

CUTTING EDGE
PRECISION BLADES
MADE IN LIVERPOOL



HARDY

MADE IN LIVERPOOL

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