

Supporting the Laminitic Horse

Making and applying support for the laminitic horse

Hansen Forge

Contents of this Presentation

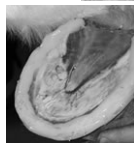
- Methods of treatment
- Interpreting radiographs.
- Remodelling of the hoof capsule.
- Position of frog/sole support
- Making of support shoes
- Applying support shoes and acrylics

Hansen Forge

Methods of treatment

There has been many and varied methods used in the mechanical treatment of laminitis. Some of these are:-

- Trimming
- Heart bar shoes
- Equine Digit Support System EDSS
- Rail shoe
- Acrylic applications



Hansen Forge

Photo: Courtesy Vettec

Heart-bar/sole support

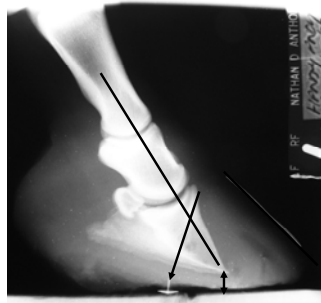
- Combination of methods.
- Aluminium heart bar shoes. (steel can be used on the smaller horse)
- Leather pads
- Impression material
- Wedges/rails fitted externally. (If required)



Hansen Forge

Purpose of lateral radiographs

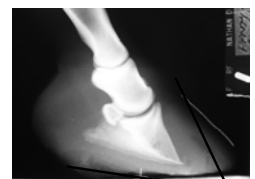
- Degree of rotation/sinkage.
- Sole Depth
- Position of tip of P3
- Position of frog in relation to P3.
- Position of hoof capsule



Hansen Forge

Remodelling The Hoof Capsule

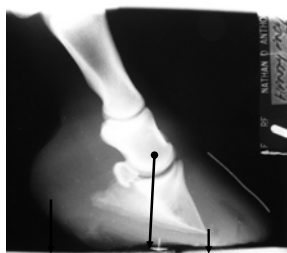
- The hoof capsule should be remodelled in accordance with the position of P3.
- Sole depth should be taken into consideration when trimming



Hansen Forge

Positioning the Shoe

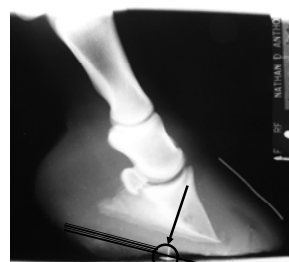
- Break-over point positioned beneath the tip of P3.
- Heel of the shoe extends to the heel bulbs.
- Reduced DDFT strain during the break-over phase of the stride.
- Maximum caudal support.



Hansen Forge

Position Of Frog Support

- The tip of the frog plate is positioned directly below centre of P3
- The centre of P3 is established by drawing a line from the base of the extensor process perpendicular to the solar margin.
- This line is then referenced to the marker placed in the frog.



Hansen Forge

Position of Sole Support

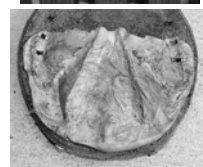
- Impression material is placed on the posterior aspect of the foot at and behind the position of frog support.



Hansen Forge

Theory Behind This Method

- The frog plate creates a solid base for frog support.
- The impression material moulds into the foot.
- Creates a neutral frog support.
- Negative sole support.



Hansen Forge

Advantages

- Full protection (wide web and pads)
- Evenly distributed bony column support. (Compound material)
- Extended time between shoeing intervals (Compared to simple heart bar applications)
- Constant support between shoeing intervals.

Hansen Forge

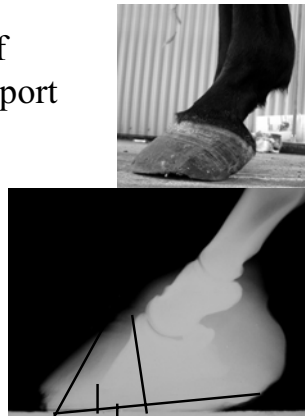
Advantages

- Hoof capsule retains shape.
- Ease of break-over reduces strain on DDFT.
- Ability to make additions after shoes have been applied. (Wedges)
- Inexpensive when compared to ready made kits.
- Shoes are simple to make for any competent farrier.

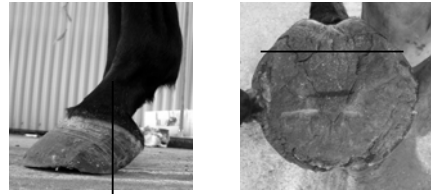
Hansen Forge

Process Of Applying Support

- Lateral radiographs viewed.
- Markers points identified.
- Centre and tip of P3 measured from position of thumb tack.



Hansen Forge



- Trimmed for maximum caudal support.
- Reference points showing centre and tip of P3 are marked.



Hansen Forge

Making The Support Shoe

Material

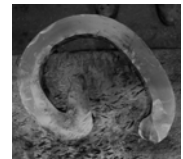
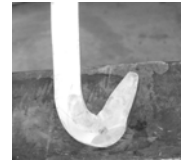
- 25/20mm x 12mm aluminium flat.
- Aluminium filler rod
- Aluminium welding flux



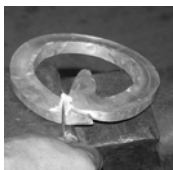
Hansen Forge



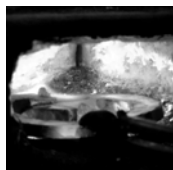
- Form frog plate scarf.
- Turn toe and branch.
- Scarf and turn opposite heel.
- Turn branch.
- Clean scarf joints with stainless steel brush
- Overlap scarf joints.



Hansen Forge



- Apply filler rod and flux.
- Heat and let filler rod run into join.
- Hold joints together and let cool.
- Repeat if necessary.
- Fuller/stamp nail holes



Hansen Forge



Do Not Lose Concentration



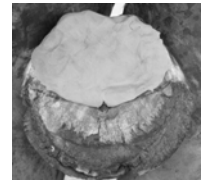
Hansen Forge

- Shoe forged from 25mm x 12mm aluminium.
- Toe rolled.
- Deep seated.
- Leather pad applied.



Hansen Forge

- Mix and apply impression material.
- Apply shoe to the foot.
- Allow impression material to set.
- Set down the foot.
- Dress the hoof capsule



Hansen Forge

If the foot is to be placed on the ground before impression material has set simply work through the pad to relieve pressure to the sole



Hansen Forge

To Wedge Or Not To Wedge

Wedges are applied if the horse-

- Displays the classic camped forward stance.
- Walks uncomfortably

Hansen Forge

Wedges applied post shoeing if necessary.

- Pre-drill shoes to accommodate self tapping screws.

- Wedges can be cut from degree wedge pads/aluminium rails

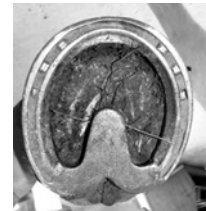
- Apply wedges to shoe with self tapping screws.



Hansen Forge

Case Study

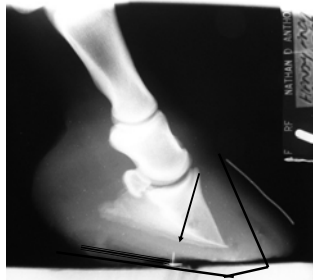
- Chronic pony
- Previously treated with heart bar shoes.
- Lame at the walk.
- On a course of phenylbutazone.
- Used for pony club activities.



Hansen Forge

Radiograph View

- Degree of rotation
- Hoof capsule remodelling required.
- Placement of frog/sole support.
- Sole depth, Tip of P3, Break-over placement



Hansen Forge

Remodelling the hoof capsule



Hansen Forge

Post shoeing treatment

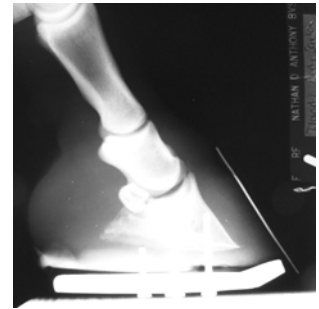
Steel heart bar shoe combined with leather pads and impression material.



Hansen Forge

Post shoeing radiograph

- Bony column alignment.
- Hoof capsule remodelled according to P3.
- Break-over beneath tip of P3



Hansen Forge

Comparison lateral view



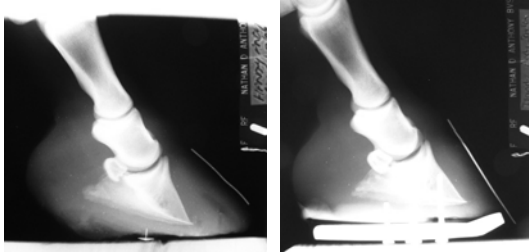
Hansen Forge

Comparison solar view



Hansen Forge

Comparison Radiographs

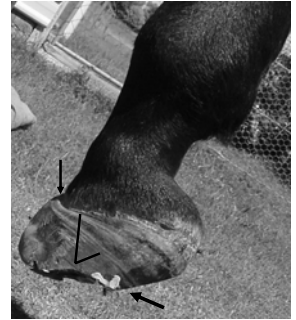


Hansen Forge

Case Study 2

Courtesy Dr. Juliane Wilmore and Craig Jones

- Thoroughbred brood mare.
- One foot only
- Had been bare foot prior to treatment.
- Skipped on toe of foot at the walk.



Hansen Forge

Lateral Radiograph

- Severe phalangeal and capsular rotation.
- Degeneration at the tip of P3.
- Very little sole depth.
- Hoof capsule needs remodelling.
- Wedges need to be applied to maintain comfortable stance.



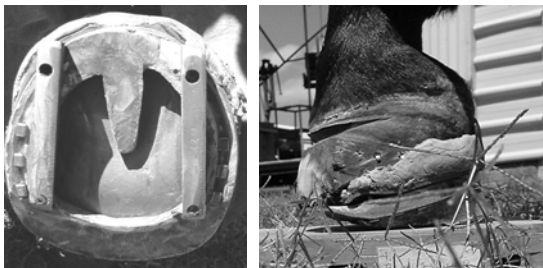
Hansen Forge

Trimmed for caudal support



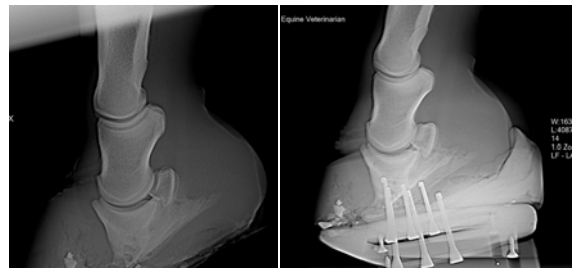
Hansen Forge

Lateral View Post Shoeing



Hansen Forge

Comparison Radiographs



Hansen Forge