Oil Burner Seat Test

Restraining Leather Seats

Presented to the Materials Working Group

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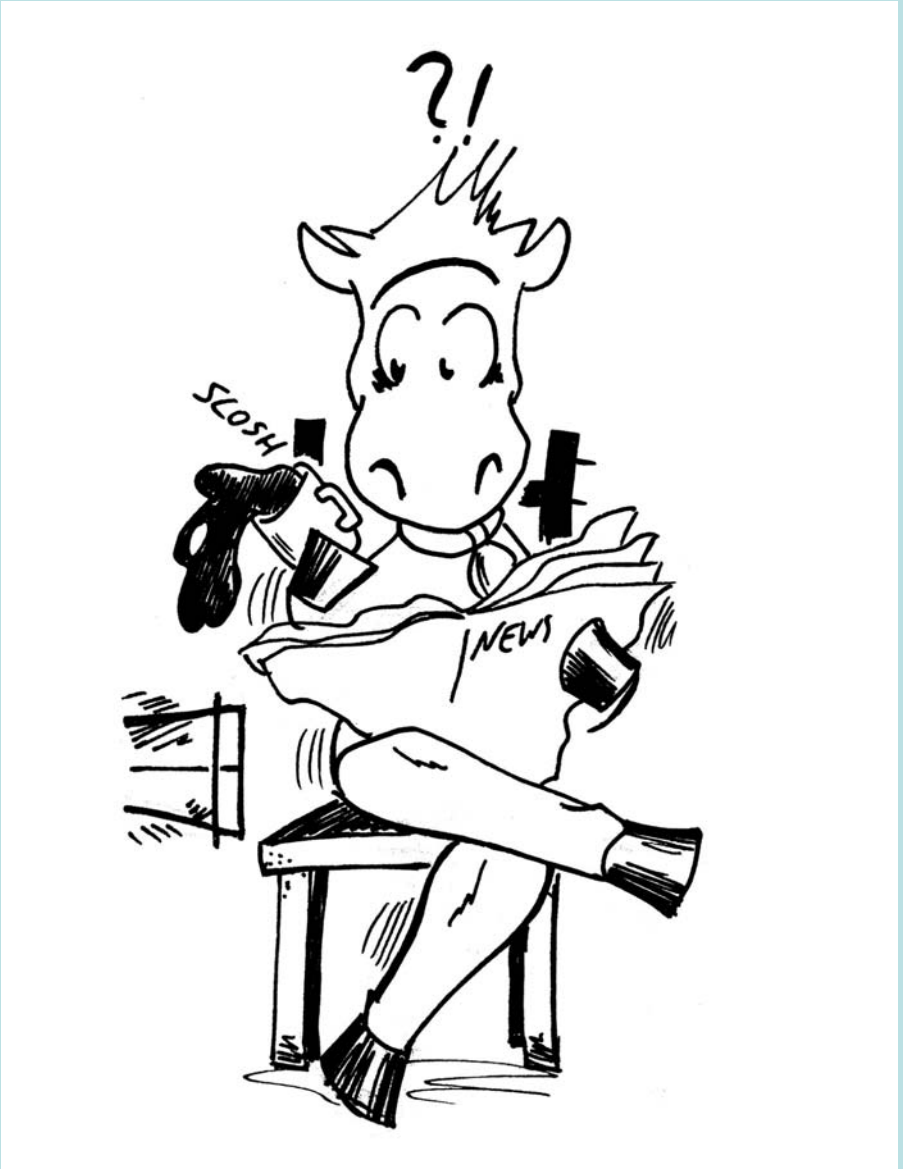
Vauth + Sohn
Kunststofftechnik

Upholstery leather..

A natural product
Once part of a
living creature!

Always...

aware of dangerous threats....



Designed to run !

How can you test leather if it always want´s to run away ?

- On an aircraft seat... In real life .. cushions are usually attached with Velcro

  On an oil burner test rig, cushions are usually restained using wire...

  can wire restraing the best way to simulate a „real life“ attachment ?

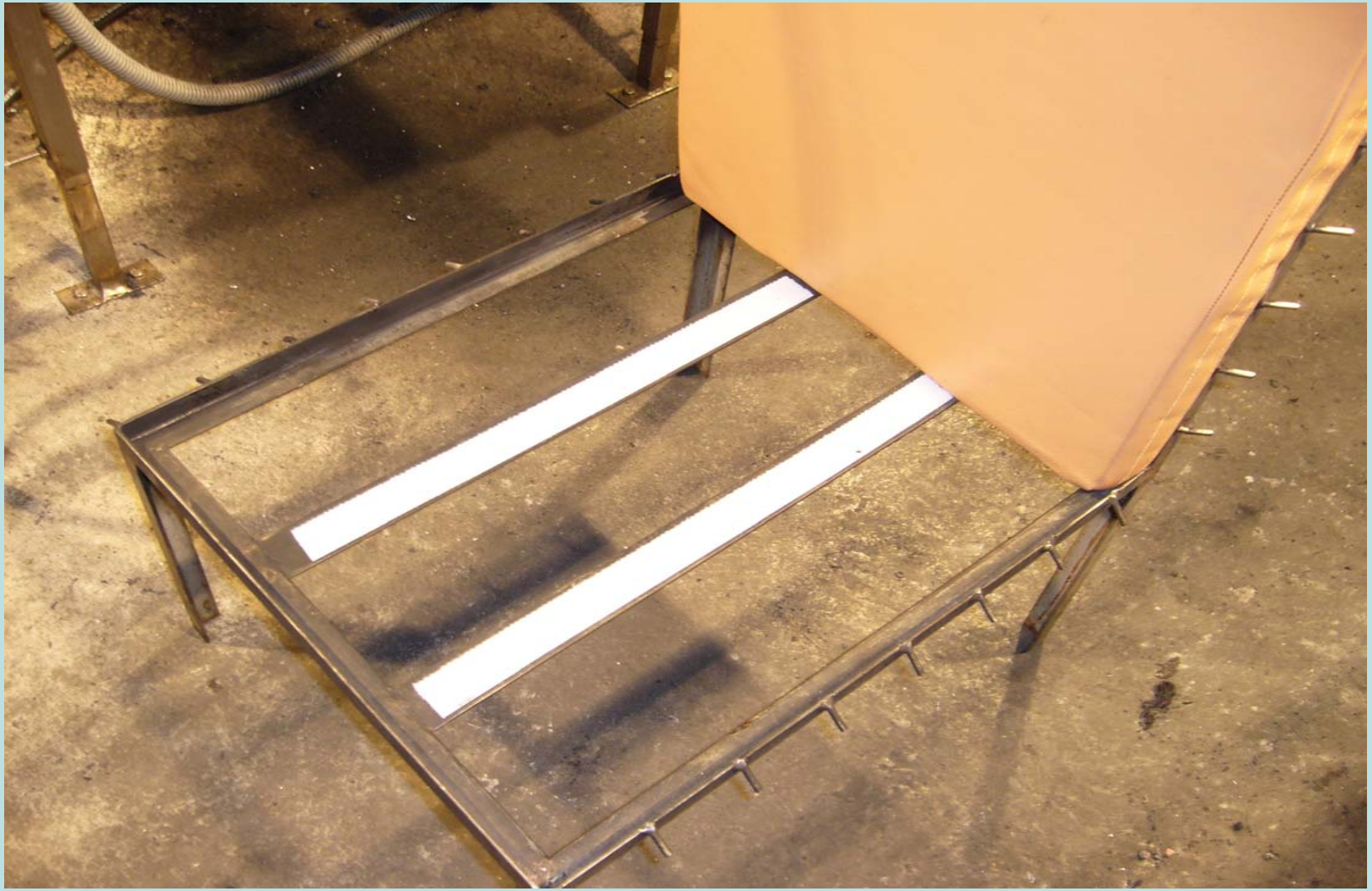
Reserch ...

- Comparing „real life“ attachments with wire restraining methods

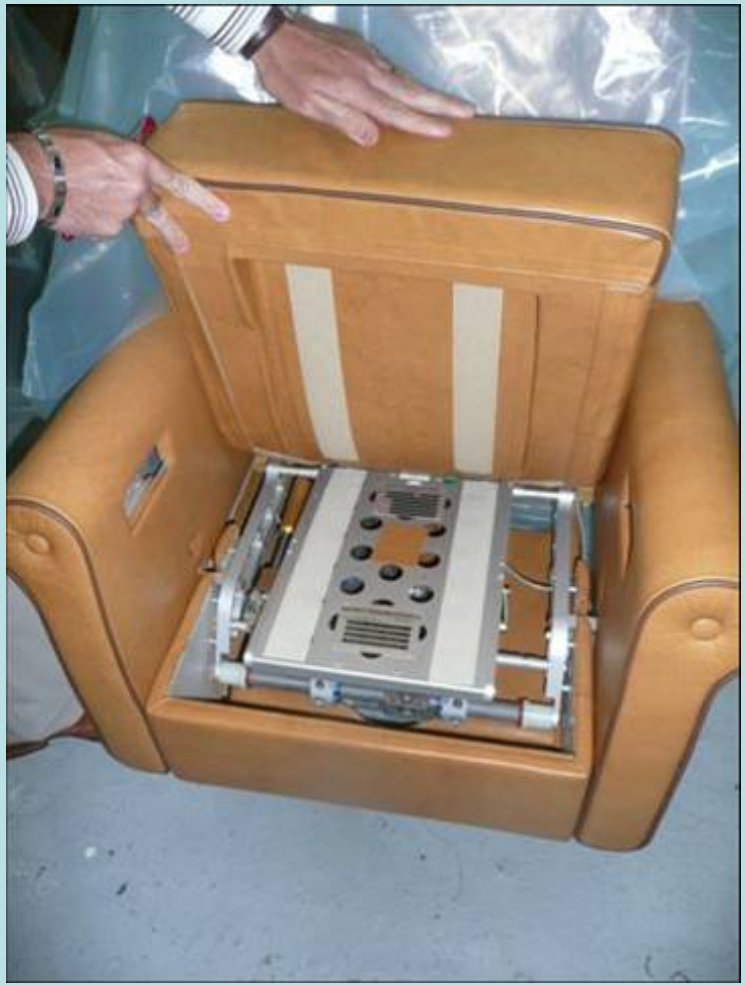
- are „real life“ attachments strong enough to restrain leather on the test rig?

Velcro attachment on test Specimen

Velcro attachment on test rig



Just like the Original



Thanks Jim, I borrowed one of your Pictures

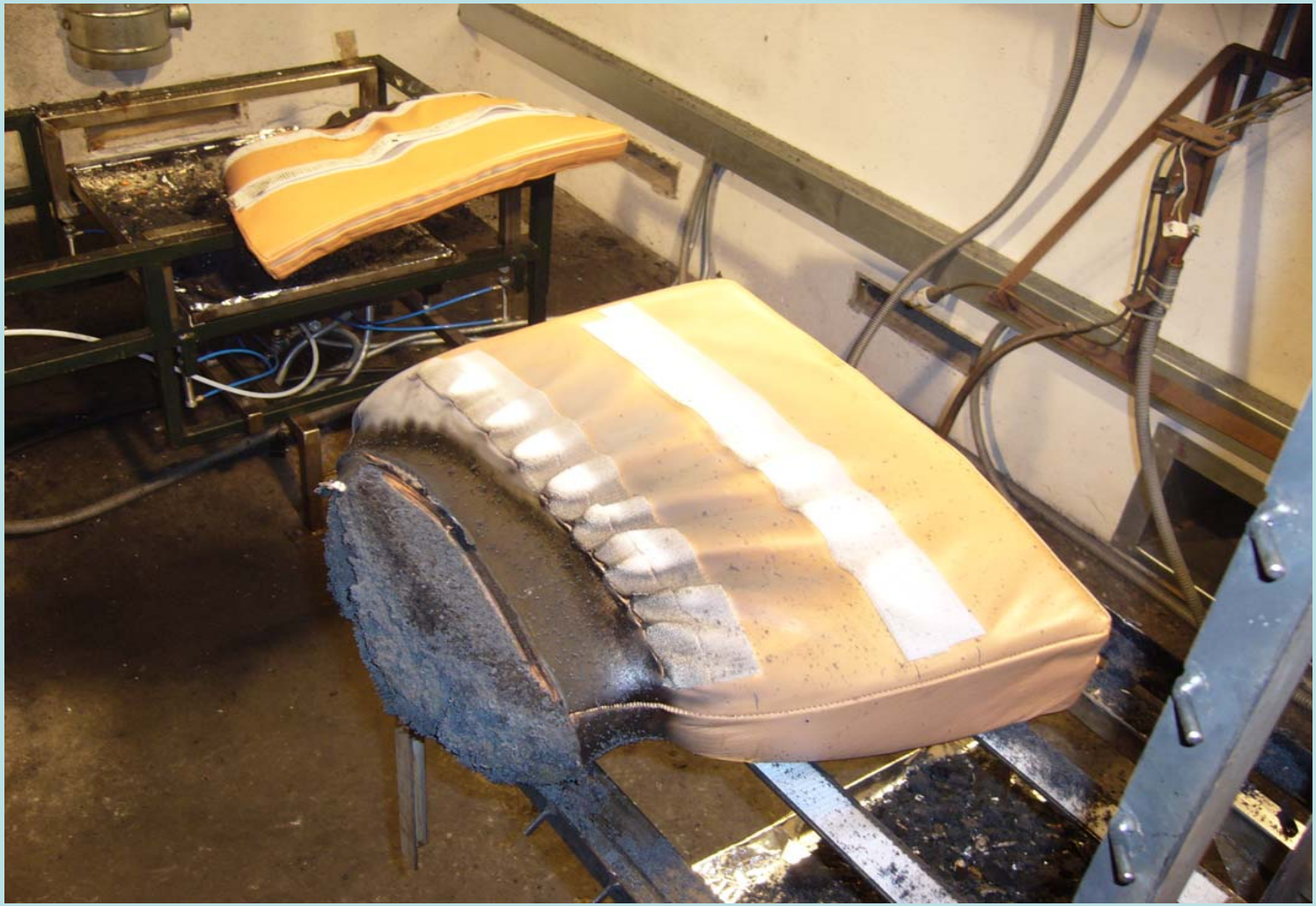
The result is:

a restraint without using wire !

Believe it or not...
It actually works !

The simulated
“real life”
Velcro attachments
Are strong enough
to restrain the
Leather cushion

View of the attachment bonded to the Specimen



However .....

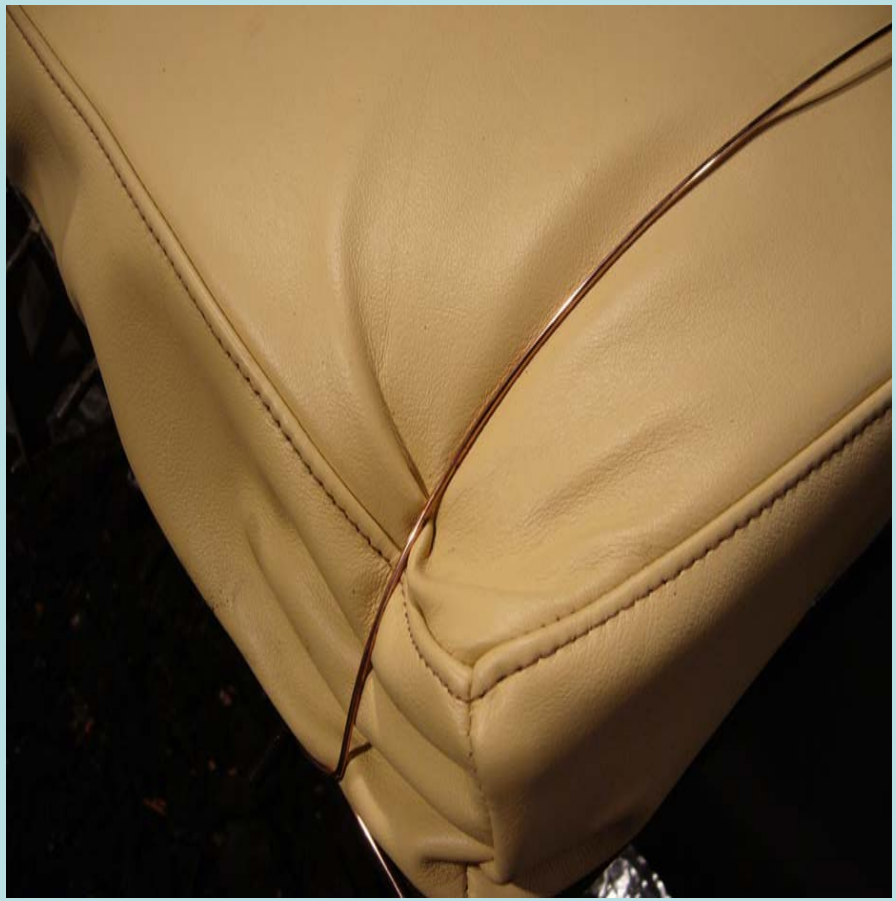
- It is not as simple as it looks
- Contamination and soot makes it very difficult to bond Velcro to the test rig
- Extensive cleaning is necessary after every test run
- Customer test samples do not come with the Velcro's in the correct position

Wiring ....

- Is very simple
- Very easy to apply
- Quickly applied
- Just as good as „real life“ attachment

If ....

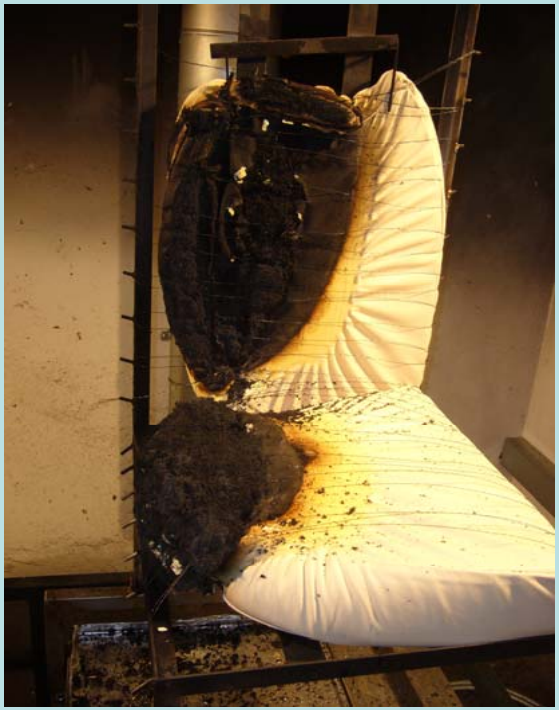
- The wire does not deform the test specimen
- The wire does not deflect the flame



If ....

- The wires are very thin and evenly spread

The results are almost Identcal



- To tested samples restrained by „real life“ attachments

Questions ?

Part 2
At the next meeting
In Germany