



SimulateLite® - Virtual Tryout

Job No: 4319

Client: zzSample Job John Citizen john.citizen@mail.com

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3D Product Design Geometry

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3D Tool Design Data

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Simulation Result - Formability - Click to Play

Introduction

The client provided product design and tool design data and requested a virtual tryout of the draw process.

The aim was to determine if splits experienced in reality, were expected OR caused by other unknown influences.

Simulation Inputs

Material: Extra Deep Draw Steel

Thickness: 1.6mm

Yield Stress: 172 Mpa

Tensile Strength: 311 Mpa

n value: 0.23

r value: 1.8

Binder Force: 71.3 tons

Surface Friction Coefficient: 0.15

Other: Cold rolled, Un-coated

Simulation Setup

As per the tool design, no draw beads were used with a square blank. The lower binder travelled down, under the applied binder force.

Disclaimer

StampingSimulation.com takes every care to ensure simulation results are as practical and accurate as possible. Differences between the simulation parameters and an actual physical tool may yield different results. These results are used at your own risk.

StampingSimulation.com Pty Ltd

21 Myall Street

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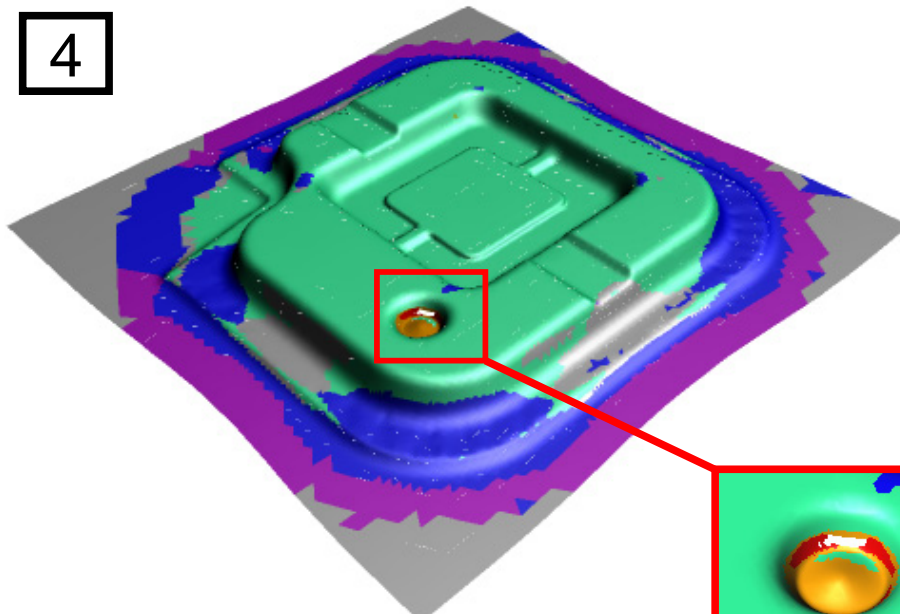
Client:

zzSample Job

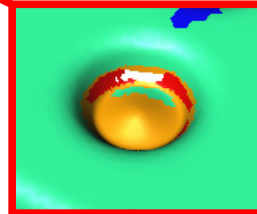
John Citizen

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3D Formability



Results

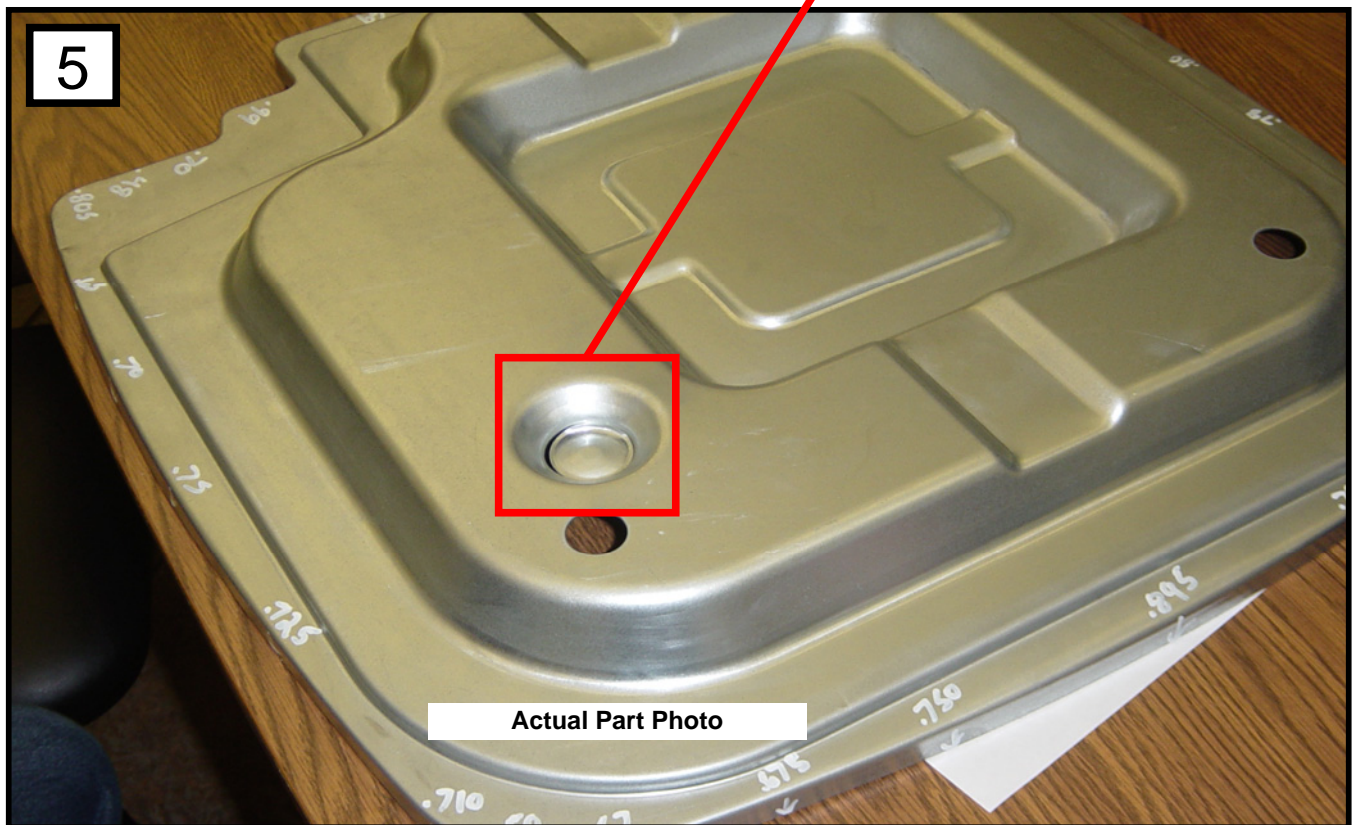
The outputs from the simulation show that simulation matches reality and that splits are predicted.

Outcome

This problem could have been avoided by using simulation BEFORE tooling fabrication.

Although not reported here, using simulation a solution to the problem was developed and presented to the client to resolve the splitting problem.

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Actual Part Photo

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