5.21

问题：

Git使用时，不要将含有.git的 文件夹拷贝到另一个含有.git的文件夹中。

不小心删了以前的workinglog 和 ppt 损失严重！~

180509\_ESR-038654截面尺寸14\*5mm，实验段长度84mm，获得力位移曲线

5.29

气袋折叠Joefold

\\ach-fs01\IT\Simulation\7\_15\_Joefold

Y:\doc\09\_CapabilityImprove\03\_AirbagFolding

Dyna 的后处理可以采用cfile

5.30

折叠气袋算例

Y:\cal\01\_Comp\03\_PAB\287\_180510\_ESR\_038665\_OH\_PAB\_HOUSING\_STRENGTH\_Zheng\01\_Input\Fold

5.31

在需要提取DEFORCE的结果时所设置的弹簧刚度应当尽量小。有两个好处，一个是计算速度会上去，二可以避免其它部件的冲击引起的微小振动将弹簧自身的拉力淹没。另外，增加阻尼单元，阻尼单元有助于降低可能存在的震荡。对于准静态的分析尽量采用隐式求解。

SB模型(由于始终位移增加，力会持续做工，能量持续输入的)分析结果验证标准：

动能/内能 <= 0.05 质量增加<2%

Quasi-static conditions must have been achieved at tensile strength requirement load level, i.e. ratio of kinetic energy/internal energy ≤ 0.05 as in ACES 001 “SB anchor plate tensile simulation” [E1009796](http://plm.autoliv.int/linkto/specific/CAE/E1009796/000).

Maximum mass scaling for the total models with webbing included has to be ≤ 2%.

The limited equivalent plastic strain is used to evaluate the structure’s strength. The tie bars and frame present a failure risk when plastic strains above these strain limits appear over half of part thickness, see Fig. 5.7.1.

Limits are 16% equiv. plastic strain using S500MC, 14% equiv. plastic strain using S550MC. Parts present a failure risk when plastic strains above these strain limits appear over the part thickness.

The evaluating failure criteria of SB components are referred to ACES 903 as [E1220066](http://plm.autoliv.int/linkto/specific/CAE/E1220066/000)

‘Breakage’ is very common in AUTOLIV tests: The test philosophy is “test to failure”. Such tests have, by principle, a large spread in the results. Repeated tests never lead to the exact same result, a simulation does. Therefore, it is impossible to exactly predict breakage with a simulation as it is a matter of statistical chance. A failure criterion, therefore, is always a statistical tool only.

气囊点爆

Criteria to reach at the end of the relaxation to validate the state:

Contact force resultants: Fcntc < 103N,

Internal energies: ∆Eint ≈ 0,

Damping energies: Edamp < 0,10 \* Etot,

Kinetic energies: Ek << Eint,

Total energies: ∆Etot ≈ 0.

For (sheet-)metal parts, plastic equivalent strain is commonly evaluated:  
**PEEQ < εlimit**

For brittle (cast-)metal parts, max. principal stress is appropriate  
**σp,max < σlimit**

For polymer parts, max. principal strain useful, or mises stress (even if „principally wrong“)   
**εp,max < εlimit**

**σmises < σyield**

6.5

采用动力学评定时，要区分应力还是应变评定，如果部件截面中大于breakage strain的应变单元超过厚度的1/3，即可认为失效，并进一步分析失效的形式，包括：Functional failure，功能失效、part buckling部件屈曲、断裂（Breakage）。

如果通过单轴拉伸获得力-位移曲线，转换成应力-应变曲线时，要注意塑性应变=etot – eelas=etot – sigma/E

0606

1.[05 Simulation\_ESR\_guideline\_CTC](http://alvteams.alv.autoliv.int/sites/ctcplmteam/testing/TestingDVM%20Training%20Material/01-DVM%20%e5%9f%b9%e8%ae%ad%e8%ae%b2%e4%b9%89/05%20Simulation_ESR_guideline_CTC.pptx)

2.叠气袋时，生成的PC的文件要修改版本号和删除file m，求解前最好用visual检查模型质量

0607

Joetool 中的Jroll 三个方向的移动距离要和全局坐标系一致，不然生成的时候会报错，并且与实际的物理现实不符。