Progress update – TRL/EC Test Programme

Presented by David Hynd
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Agenda

- Introduction to the programme
  - Objective
  - Overview of the seat rig

- Progress so far
  - 5 repeats with each of 4 dummies (20 tests total)
    - Dummies 028, 068, 077 and 100
  - 3 repeats with outlying PDB dummies
    - Dummies 006 and 007

- Future plans
Introduction

Objectives

Primary

- Compare BioRID seat test responses with certification results
  - Determine correlation between certification and seat test results
  - Recommend updates to certification corridors to control seat test results

Secondary

- Evaluate kinematic measures with on-board and off-board cameras
  - No info in this presentation...
Introduction

Test Programme

- Developed a modified production car seat
  - Seat base
    - Mounted directly to sled
    - Otherwise unmodified
  - Seat back
    - Separated from seat base
    - Recliner mechanism replaced by a rigid pivot and external bearings
    - Seat back structure strengthened to allow repeated tests
    - Seat foam, cover, etc retained
    - Recline and rebound controlled by an external spring-damper mechanism
  - Head restraint
    - Can be mounted to give different backsets
Introduction

Test Programme
Introduction
Introduction
Introduction
Introduction
Introduction
Introduction
Introduction
Introduction
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Test Programme

Original Plan

- 5 tests each with 4 dummies
  - Far head restraint
  - Medium head restraint
  - Close head restraint
    - 60 tests!

- Additional tests with selected dummies
  - E.g. 9 tests with on-board camera
Progress

20 tests with 028, 068, 077 and 100
Progress

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6 tests with PDB dummies 006 and 007
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6 tests with PDB dummies 006 and 007
Do You Have Any Questions?