

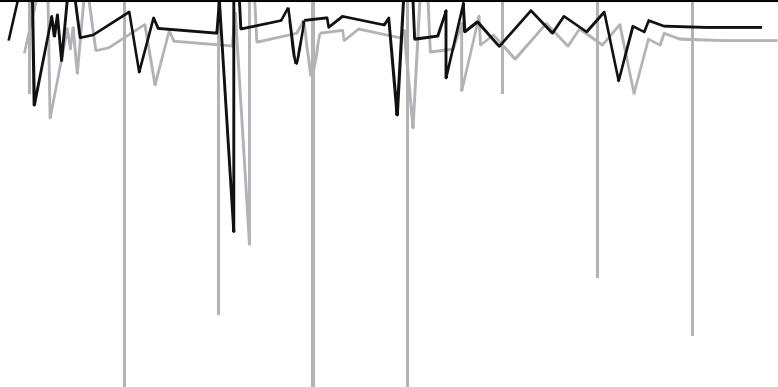


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Documentation

Testing

Y2126DK001-003
Head impact test (dynamic)
according to ECE R21
Sydmeko Industri AG
24.01.2011



ACTS - Advanced Car Technology Systems GmbH & Co. KG
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Registergericht: Aschaffenburg / HRB 9491
Sitz der Gesellschaft (KG): 63877 Sailauf, Deutschland
Registergericht: Aschaffenburg / HRA 3324

Test Documentation



Test No.: U0839DK001-003

Customer Test No.:

Test Vehicle : Driver-Seat VW Golf V

Configuration: ECE R21

Test Description:

Head impact test dynamic

Report No.:

U0839DK001

Customer: *Sydmeke Industri AG*

Customer contact:

Tested positions: Pos. 1: x Pos. 2: Pos. 3:
Pos. 4: Pos. 5: Pos. 6:
Pos. 7: Pos. 8: Pos. 9:

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Date of test: *24.01.2011*

Task and objective

Scope of Report:

Test with following test assembly and seat

Part: *Armrest mounted on a VW Golf V seat*

Manufacturer: *Sydmeke Industri AG*

Part No.: *Adapter Test001-00: F1030-40008U*

Armrest Test 001: ML385

Armrest Test 002: ML285

Armrest Test 003: MLC310

9 *Pages Report*

6 *Diagrams on CD*

3 *Movies on CD*

Photos pre-post on CD

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Test description

The tests are conducted according to ECE R-21 (Issue 31. January 2003)

Test criteria

The deceleration of the head form shall not exceed 80 g continuously for more than 3 ms. The tested area shall not contain any dangerous roughness or sharp edges likely to increase the risk of serious injury to the occupants.

Test result

Y2126DK001	$a_{3ms} = 31,6g$	No sharp edges	pass
Y2126DK002	$a_{3ms} = 25,4g$	No sharp edges	pass
Y2126DK003	$a_{3ms} = 45,7g$	No sharp edges	pass

This test report has been generated digitally and is valid without signature.

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Table of contents

Task and objective	2
Test with following test assembly and seat	2
Test description	2
Test criteria	2
Test result	2
Test structure	4
Requirements	4
Test criteria	4
Test assembly	4
Test parts	6
Test evaluation	7
Overview of test results	7
Evaluation of photo documentation	7
Diagrams	8

Test structure

Requirements

The dynamic head impact test is accomplished in accordance with ECE R-21 regulations.

The relative velocity must be 24,1 km/h.

The diameter of the head form must be 165 mm and the weight must be 6,8 kg.

Test criteria

The deceleration of the head form shall not exceed 80 g continuously for more than 3 ms.

The tested area shall not contain any dangerous roughness or sharp edges likely to increase the risk of serious injury to the occupants.

Test assembly



photo 1: test set up



photo 2: U0839DK001 – side view



photo 3: U0839DK001 – front view



photo 4: U0839DK002 – side view



photo 5: U0839DK002 – front view



photo 6: U0839DK003 – side view



photo 7: U0839DK003 – front view

Test parts



photo 8: U0839DK001



photo 9: U0839DK002

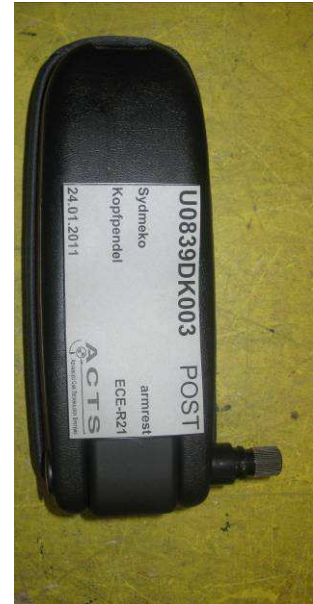


photo 10: U0839DK003



photo 11: fixing adapter

test no.	type no.
U0839DK001	armrest: ML385
U0839DK002	armrest: ML285
U0839DK003	armrest: MLC310
U0839DK001-003	adapter F1030-40008U

Test evaluation

Overview of test results

Test number	Impact velocity [km/h]	max. acceleration [g]	a _{3ms} -value [g]	Optical control	pass / failed
U0839DK001	24,77	36,5	34,7	no sharp edges at the surface	pass
U0839DK002	24,52	35,9	30,2	no sharp edges at the surface	pass
U0839DK003	24,44	45,6	38,5	no sharp edges at the surface	pass

Evaluation of photo documentation



photo 12: U0839DK001



photo 13: U0839DK001



photo 14: U0839DK002



photo 15: U0839DK002



photo 16: U0839DK003



photo 17: U0839DK003

Diagrams

