



Technical Report No.: 121884 – 18 – TAC
 Test method: ECE Regulation No. 14.07
 Manufacturer / Order party: OKB Sp. z o.o., Poland
 Product under test: SAF01 / SAF02 / SAF04

TECHNICAL REPORT No. 121884 – 18 – TAC

Test according to
ECE Regulation No. 14.07
**Uniform provisions concerning the approval of vehicles
with regard to safety-belt anchorages**

Test method: ECE Regulation No. 14.00 of 1970-04-01
including all amendments up to and including:
ECE No. 14.07, supplement 8 – date of entry into force: 2018-02-10

Objectives: Document for manufacturer

I. Technical data

- | | | |
|--------|----------------------|--|
| 0.1.1. | Order party: | OKB Sp. z o.o.
ul. Rokicińska 108/110,
95-006 Bukowiec,
Poland |
| 0.1.3. | Manufacturer: | OKB Sp. z o.o.
ul. Rokicińska 108/110,
95-006 Bukowiec,
Poland |
| 0.2. | Product under test: | Frame for installation of seats in camper vans
equipped with safety belt anchorages and
ISOFIX anchorages. |
| 0.2.1. | Make: | OKBee |
| 0.2.2. | Type: | SAF01 or
SAF02 or
SAF04 |
| 0.2.3. | Commercial name: | OKBeeSAFE 01 or
OKBeeSAFE 02 or
OKBeeSAFE 04 |
| 0.3. | Test required: | Static strength tests according to ECE Regulation
No. 14 |
| 0.4. | Category of vehicle: | M1 |



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II. Test report

1. Test conditions

1.1. Test sample: Frames SAF01, SAF02 and SAF04 mounted in vehicle body or on rigid test rig.

1.1.1. Table of vehicles types for which are test results valid:

Manufacturer	Commercial description	Wheelbase
Daimler	Sprinter (906, 907)	3250, 3665, 4325
	Sprinter (910)	3259, 3924
	Vito/Viano/V-klasse (639/2, 639/4)	3200, 3430
VW	Crafter (2E_)	3250, 3665, 4325
	Crafter (SYN_)	3640, 4490
	T5 (7H_, 7E_)	3000, 3400
	T6 (7H_, 7E_, 7J_)	3000, 3400
Citroen	Jumper (Y)	3000, 3450, 4035
	Jumpy (X)	3000, 3122
	Jumpy (2016)	2925, 3275
	SpaceTourer	2925, 3275
Peugeot	Boxer (Y)	3000, 3450, 4035
	Expert (VF3_)	3000, 3122
	Expert (2016)	2925, 3275
	Traveller	2925, 3275
Fiat	Ducato (250)	3000, 3450, 4035
	Scudo (270)	3000, 3122
	Talento (FJL, FFL)	3098, 3498
Opel	Movano (MR, MS, MW)	3182, 3682, 4332
	Vivaro (F7)	3098, 3498
Renault	Master (FV, MA)	3182, 3682, 4332
	Trafic (FL, L)	3098, 3498
	Trafic 2014 (JL, L)	3098, 3498
Renault Truck	Master (MF)	3182, 3682, 4332
Ford	Transit (FA_, FD_)	2933, 3300, 3750
	Transit (FC_)	3300, 3750, 3954
	Transit Custom (FA_, FC_)	2933, 3300
Iveco	Daily	3000, 3300, 3520, 3950, 4100, 4750
Nissan	NV200	2725
	NV300	3098, 3498
	NV400	3182, 3682, 4332
Toyota	Pro Ace Verso (2016)	2925, 3275
MAN	TGE (SYN_)	3640, 4490



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- 1.2. Test procedures used: According to procedure of checking of number, geometry and strength of safety belt anchorages according to ECE 14.07, par. 5,6,7 and Annexes 3-6, 9.
- 1.3. Measuring and test equipment:
 - Digital ballance
 - Electrohydraulic test device and respective fixtures
 - Force measuring chain with load cells
 - Tape rule
- 1.5. Test track or site: Test laboratory OKB, Bukowiec, Poland
 PIMOT, Warszawa, Poland

2. Test results

The below mentioned test results cover all the variants including the maximum mass stated in the enclosed information documents.

Geometrical requirements are fulfilled; all the seat belts are provided on seat frame.

2.1. Safety belt anchorages

2.1.1. Frame SAF01 mounted in vehicle FIAT Ducato body as a worst case configuration.

Mass of the frame $m_s = 47$ kg.

Additional force applied $F_z = 20 \times m_s \times g$ (N) as relevant to M1.

Seat	Forward facing	
	L	R
Safety belt	Ar	
Upper belt anchorage	Frame structure	
Lower belt anchorages	Frame structure	
Required force in shoulder belt portion	13 500 ±200 N	13 500 ±200 N
Required force in lap belt portion	18 800 ±200 N	18 800 ±200 N
Force in the shoulder belt	13 500 N	14 300 N
Force in the lap belt	19 200 N	18 840 N
Remark: No ruptures occurred. Additional force is added to lap belt portion.		

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2.1.2. Frame SAF02 mounted on rigid test rig.

Mass of the frame $m_s = 42$ kg.Additional force applied $F_z = 20 \times m_s \times g$ (N) as relevant to M1.

Seat	Forward facing	
	L	R
Safety belt	Ar	
Upper belt anchorage	Frame structure	
Lower belt anchorages	Frame structure	
Required force shoulder belt portion	13 500 \pm 200 N	13 500 \pm 200 N
Required force lab belt portion	17 700 \pm 200 N	17 700 \pm 200 N
Force in the shoulder belt	13 500 N	13 500 N
Force in the lap belt	17 700 N	18 000 N
Remark: No ruptures occurred. Additional force is added to lap belt portion.		

2.1.3. Frame SAF04 mounted on rigid test rig OKBeeRAIL01.

Mass of the frame $m_s = 60$ kg.Additional force applied $F_z = 20 \times m_s \times g$ (N) as relevant to M1.

Seat	Forward facing	
	L	R
Safety belt	Ar	
Upper belt anchorage	Frame structure	
Lower belt anchorages	Frame structure	
Required force shoulder belt portion	13 500 \pm 200 N	13 500 \pm 200 N
Required force lab belt portion	19 500 \pm 200 N	19 500 \pm 200 N
Force in the shoulder belt	13 500 N	14 000 N
Force in the lap belt	19 500 N	19 500 N
Remark: No ruptures occurred. Additional force is added to lap belt portion.		



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2.1.4. Frame SAF04 mounted on rigid test rig OKBeeRAIL04.

Mass of the frame $m_s = 60$ kg.

Additional force applied $F_z = 20 \times m_s \times g$ (N) as relevant to M1.

Seat	Forward facing	
	L	R
Safety belt	Ar	
Upper belt anchorage	Frame structure	
Lower belt anchorages	Frame structure	
Required force shoulder belt portion	13 500 \pm 200 N	13 500 \pm 200 N
Required force lab belt portion	19 500 \pm 200 N	19 500 \pm 200 N
Force in the shoulder belt	13 800 N	13 800 N
Force in the lap belt	20 000 N	20 000 N
Remark: No ruptures occurred. Additional force is added to lap belt portion.		

2.2. ISOFIX anchorages.

2.2.1. ISOFIX anchorages on frame SAF02 mounted on rigid test rig, forward direction

Seat	Forward facing	
	L	R
ISOFIX anchorage	Frame structure	
Required force	8 000 N	8 000 N
Measured force	9 000 N	9 000 N
Displacement of X point SFAD device		
Required	<125 mm	<125 mm
Measured	75	87
Remark: No ruptures occurred.		

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2.2.2. ISOFIX anchorages on frame SAF02 mounted on rigid test rig, oblique direction

Seat	Forward facing	
	L	R
ISOFIX anchorage	Frame structure	
Required force	5 000 N	5 000 N
Measured force	5 500 N	5 800 N
Displacement of X point SFAD device		
Required	<125 mm	<125 mm
Measured	45	75
Remark: No ruptures occurred.		

Notice: Tests of ISOFIX anchorages on frame SAF02 cover frame SAF01 as well.

2.2.3. ISOFIX anchorages on frame SAF04 mounted on rigid test rig, forward direction

Seat	Forward facing	
	L	R
ISOFIX anchorage	Frame structure	
Required force	8 000 N	8 000 N
Measured force	8 200 N	8 500 N
Displacement of X point SFAD device		
Required	<125 mm	<125 mm
Measured	40	40
Remark: No ruptures occurred.		

2.2.4. ISOFIX anchorages on frame SAF04 mounted on rigid test rig, oblique direction

Seat	Forward facing	
	L	R
ISOFIX anchorage	Frame structure	
Required force	5 000 N	5 000 N
Measured force	5 400 N	5 400 N
Displacement of X point SFAD device		
Required	<125 mm	<125 mm
Measured	33	35
Remark: No ruptures occurred. Additional force is added to lap belt portion.		

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2.3. ISOFIX and Top Tether anchorages

2.3.1. ISOFIX and Top Tether anchorages on frame SAF04 mounted on rigid test rig, forward direction

Seat	Forward facing	
	L	R
ISOFIX anchorage	Frame structure	
Required force	8 000 N	8 000 N
Measured force	8 200 N	8 200 N
Displacement of X point SFAD device		
Required	<125 mm	<125 mm
Measured	45	50
Remark: No ruptures occurred.		

Notice: Test of ISOFIX and Top Tether anchorages on frame SAF04 cover use of Top Tether on frames SAF01 and SAF 02 as well.

2.3. Final assessment:

Frames SAF01, SAF02 and SAF04 are intended for use in vehicles Mercedes Sprinter and Fiat Ducato due to the results mentioned in point 2.1.1. of this report. Attachment of any frame type to vehicle is possible via OKBeeRAIL01, OKBeeRAIL04 or directly to vehicle floor with floor reinforcement (for details see enclosed information documents).

3. Specimen submitted to test on: 2018-11-19
4. Date of test: 2018-11-19
- III. Manufacturer's information folder No. OKB/OKBeeSAFE-00
46 pages total of 2018-11-19

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IV. Other documentation

Graphs: page 9 - 13

V. Attachments

No attachments

Measuring and test equipment and test site meet the requirements of the applicable legislation.
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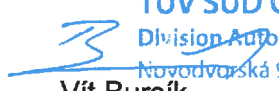
VI. Final assessment

The described sample

complies

with the requirements of ECE Regulation No. 14.07
for issue of document for manufacturer

This technical report consists of pages No. 1 to 13.


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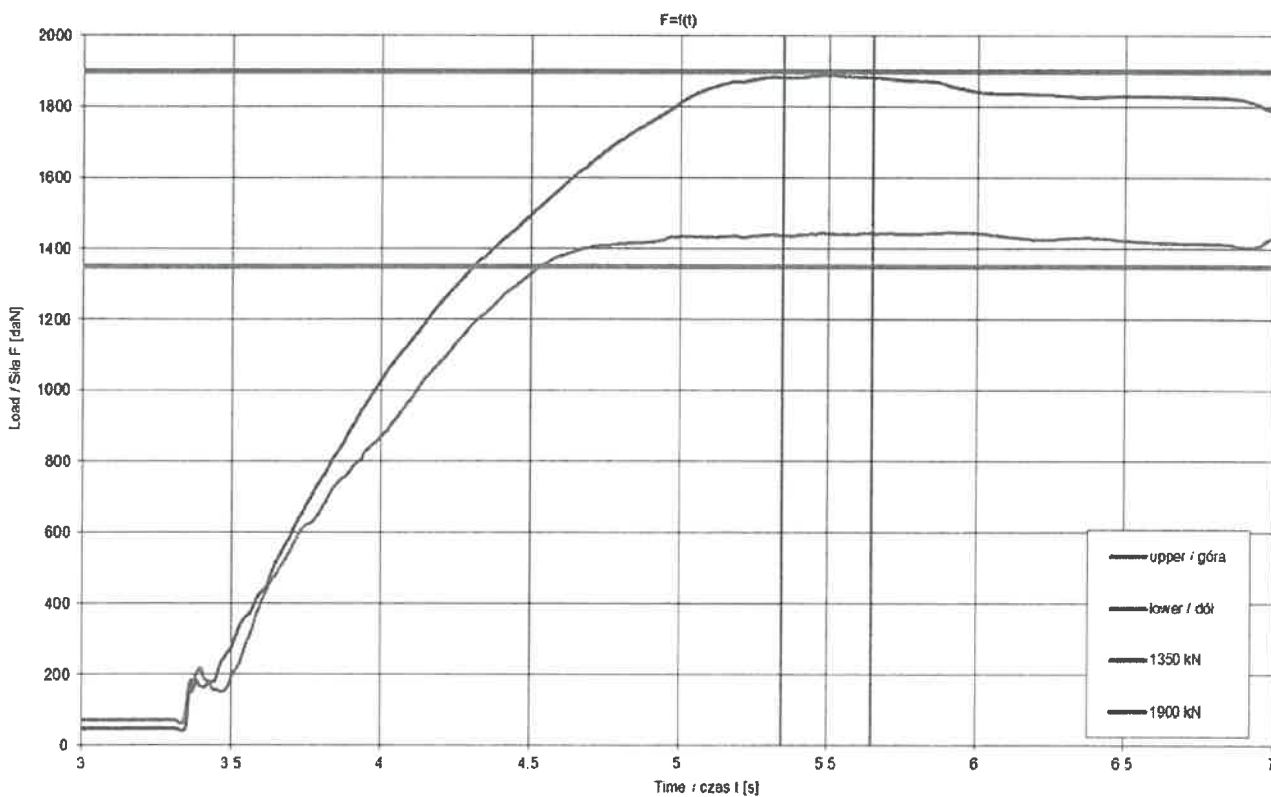
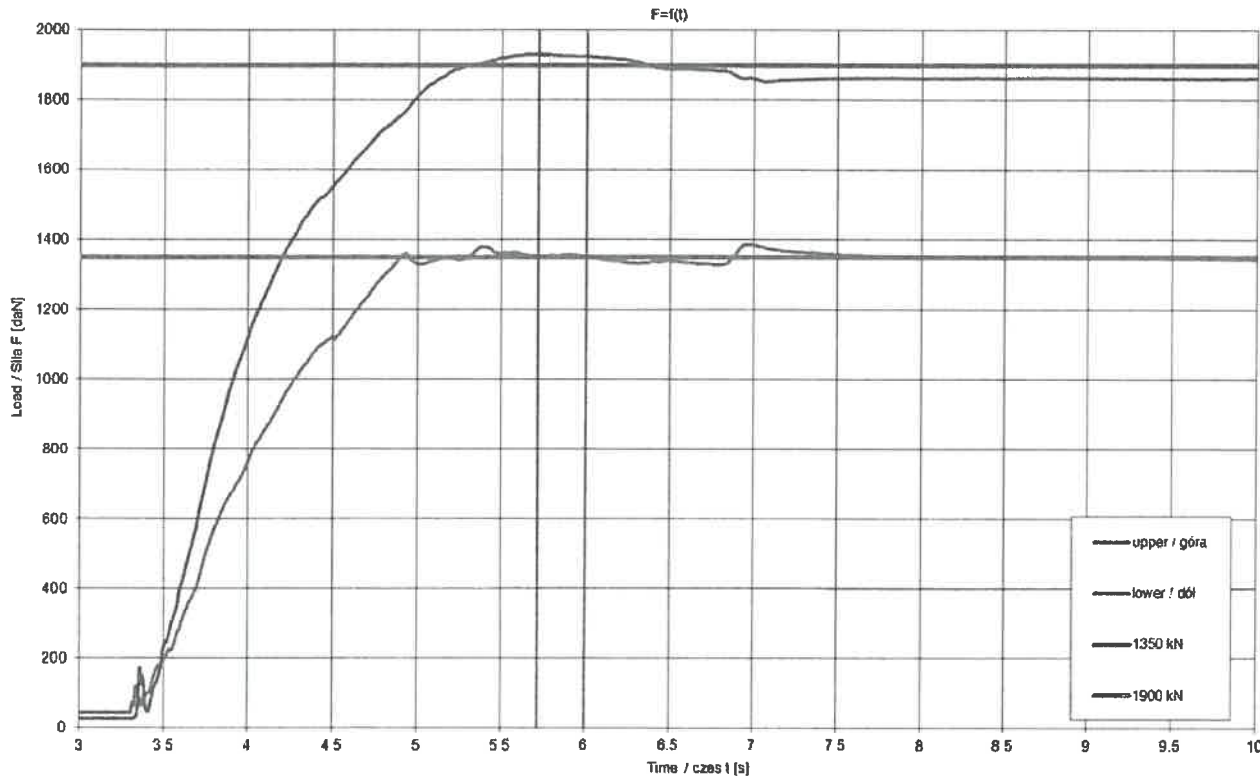
Business Unit Manager
Certification and Regulatory Compliance

Prague, 2018-11-27



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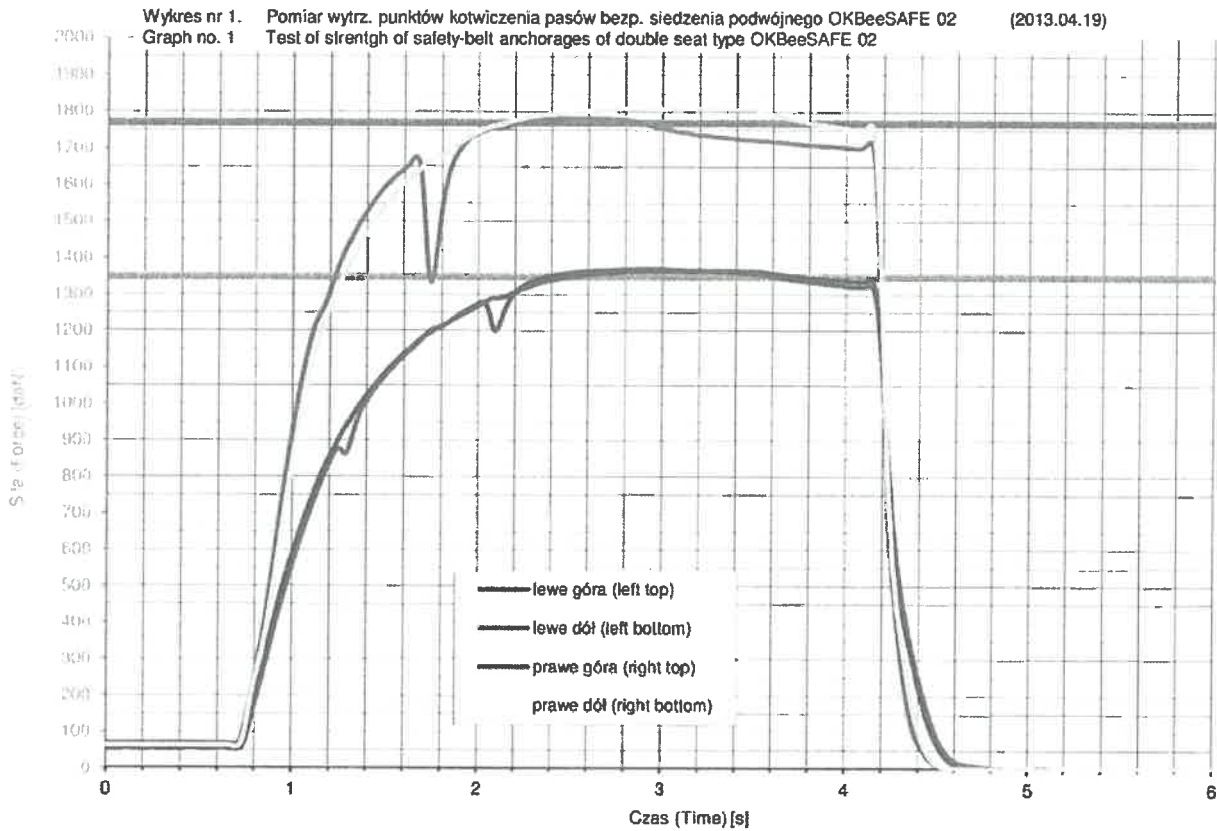
Graphs:
 Test of anchorages points on frame SAF01



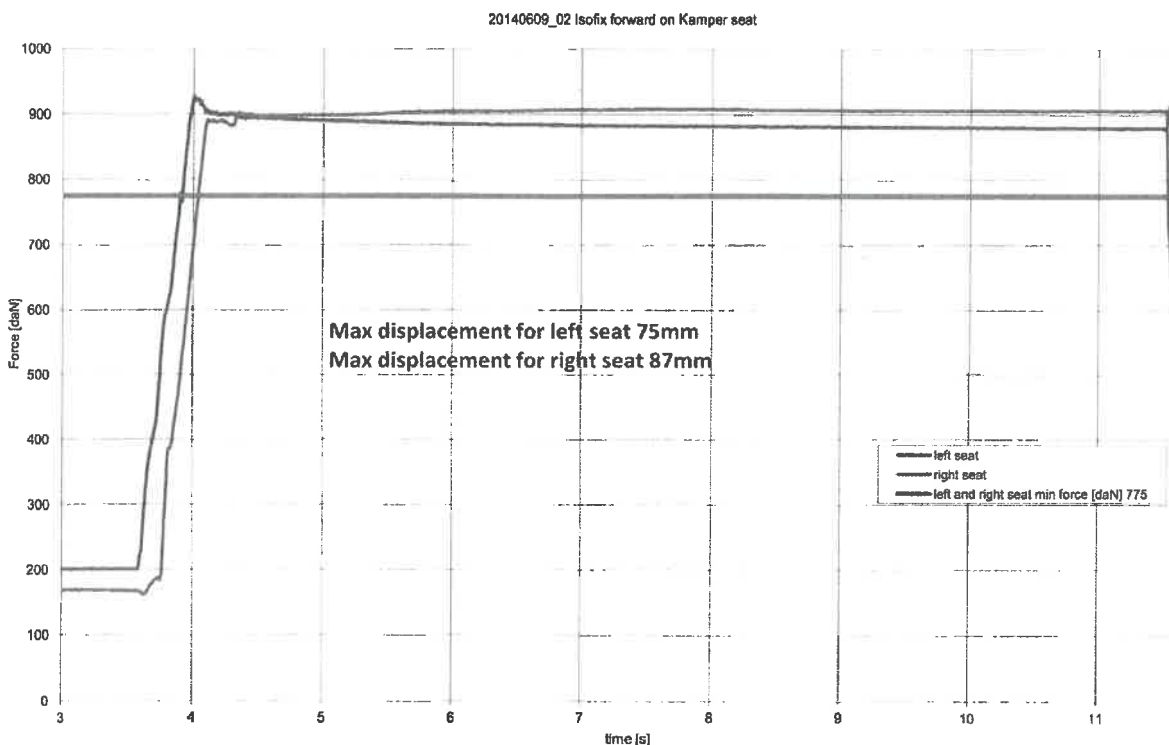


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Test of anchorages points on frame SAF02



Tests of ISOFIX anchorages on frame SAF02, front



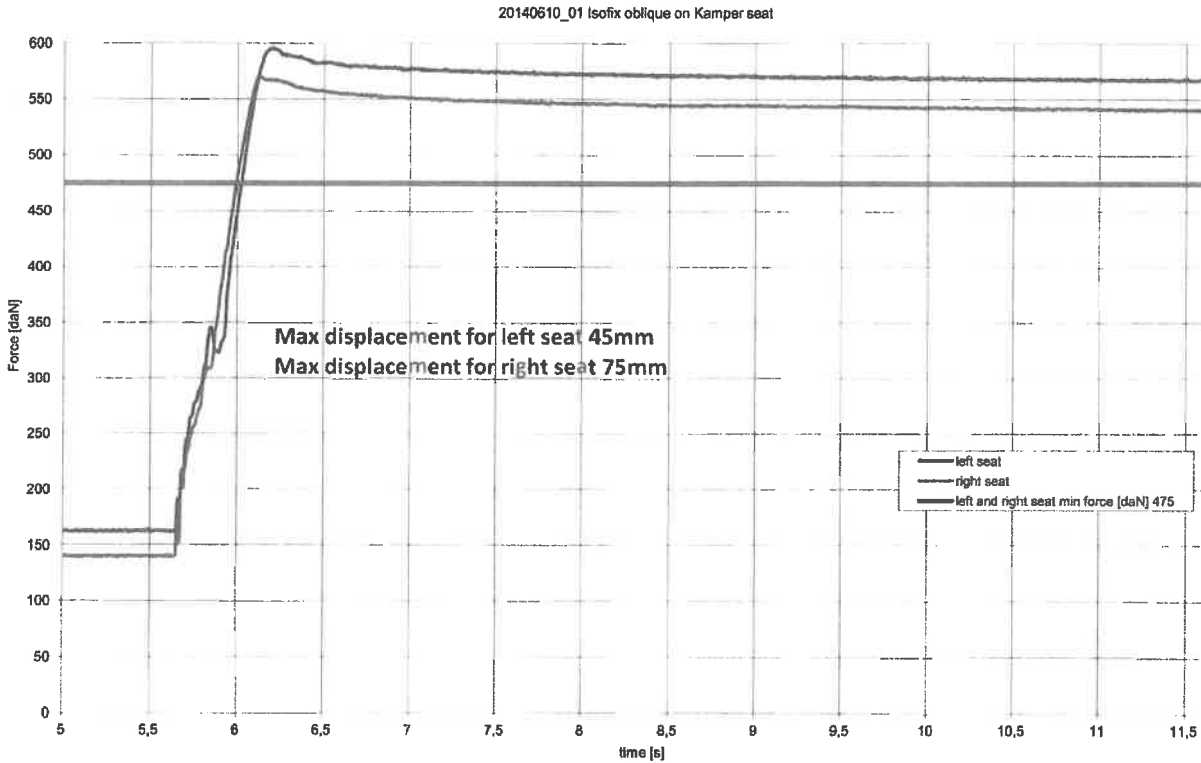
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 Product under test: SAF01 / SAF02 / SAF04



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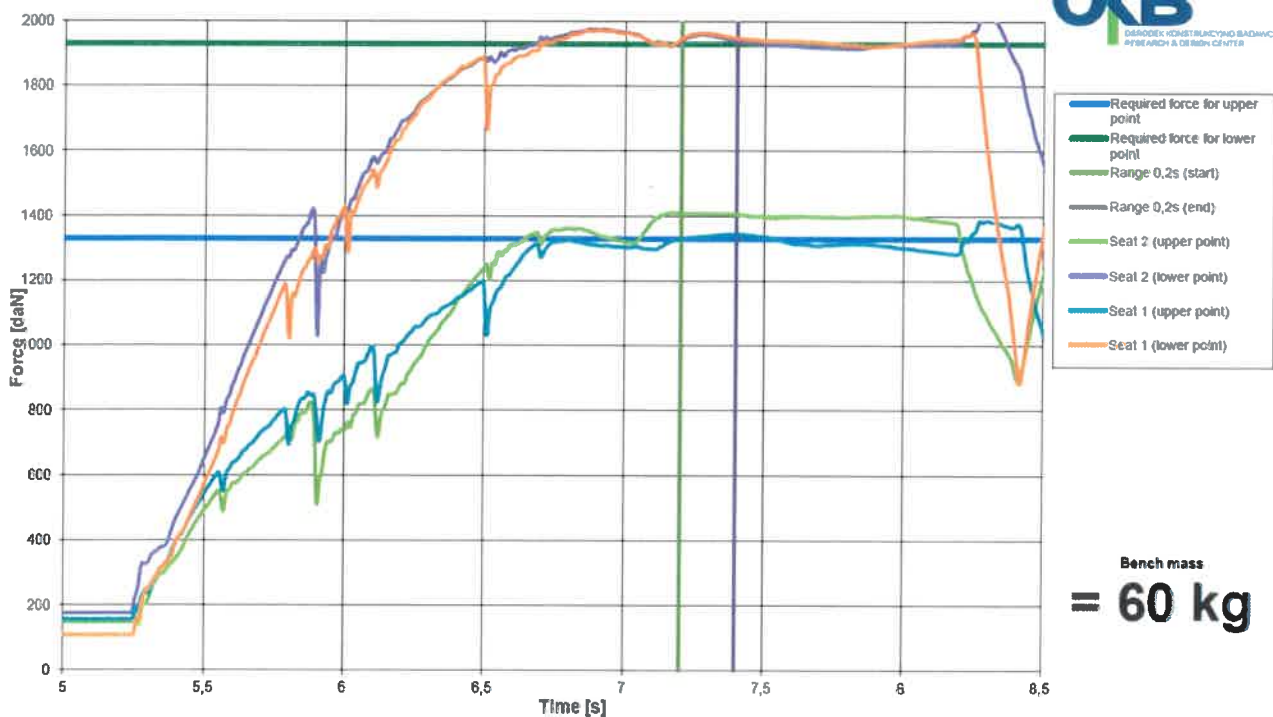
Test of ISOFIX anchorages on frame SAF02, oblique



Test of anchorages points on frame SAF04 (OKBeeRAIL01)

Date: 04.05.2015

OKBeeSafe 04 with OKBeeRAIL 01



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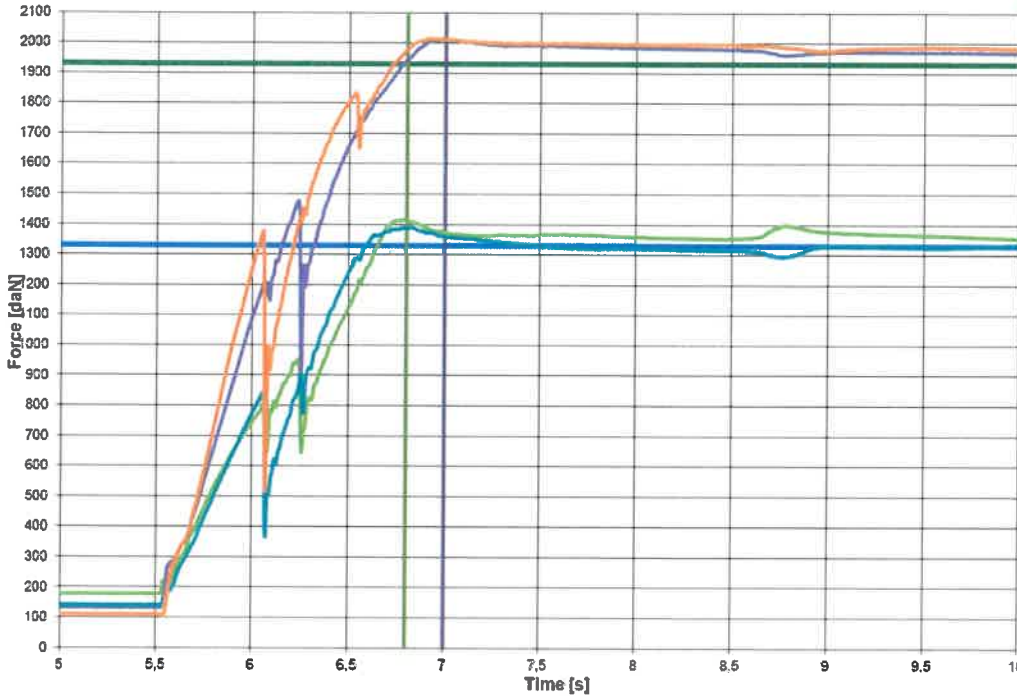
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Test of anchorages points on frame SAF04 (OKBeeRAIL01)

Date:
04.05.2015

OKBeeSafe 04 with OKBeeRAIL 04



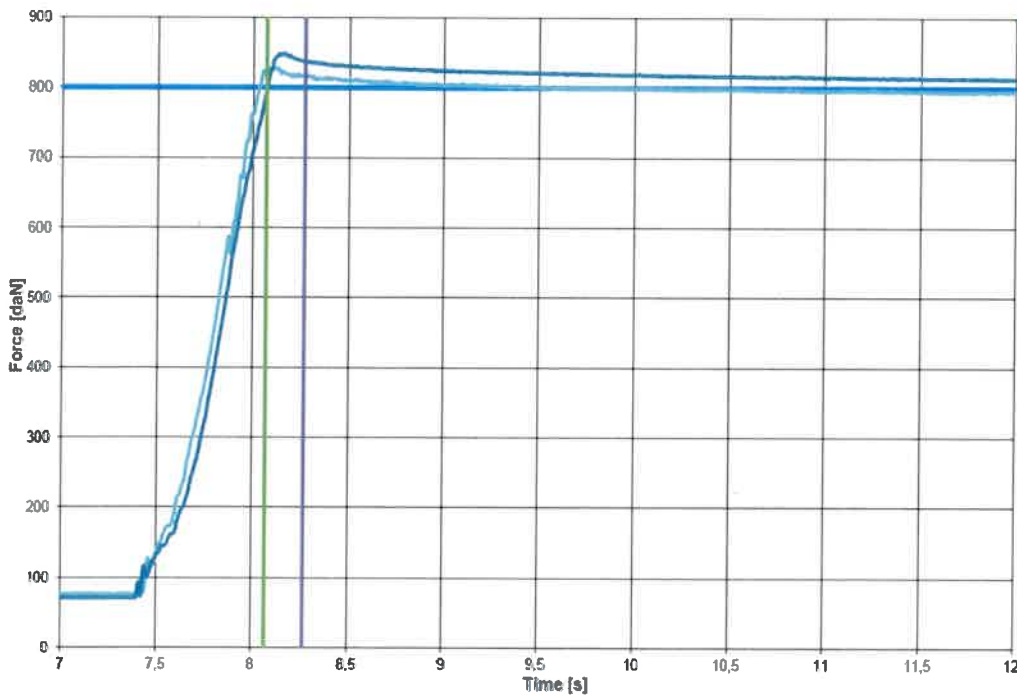
- Required force for upper point
- Required forces for lower point
- Range 0,2s (start)
- Range 0,2s (end)
- Seat 2 (upper point)
- Seat 2 (lower point)
- Seat 1 (upper point)
- Seat 1 (lower point)

Bench mass
= 60 kg

Tests of ISOFIX anchorages on frame SAF04, front

Date:
08.06.2015

ISOFIX forward direction



- Required force
- Force applied to the SFAD 1
- Force applied to the SFAD 2
- Range 0,2s (start)
- Range 0,2s (end)

Direction of test forces:
Forward

Displacement of point X of SFAD 1:
40 mm

Displacement of point X of SFAD 2:
40 mm

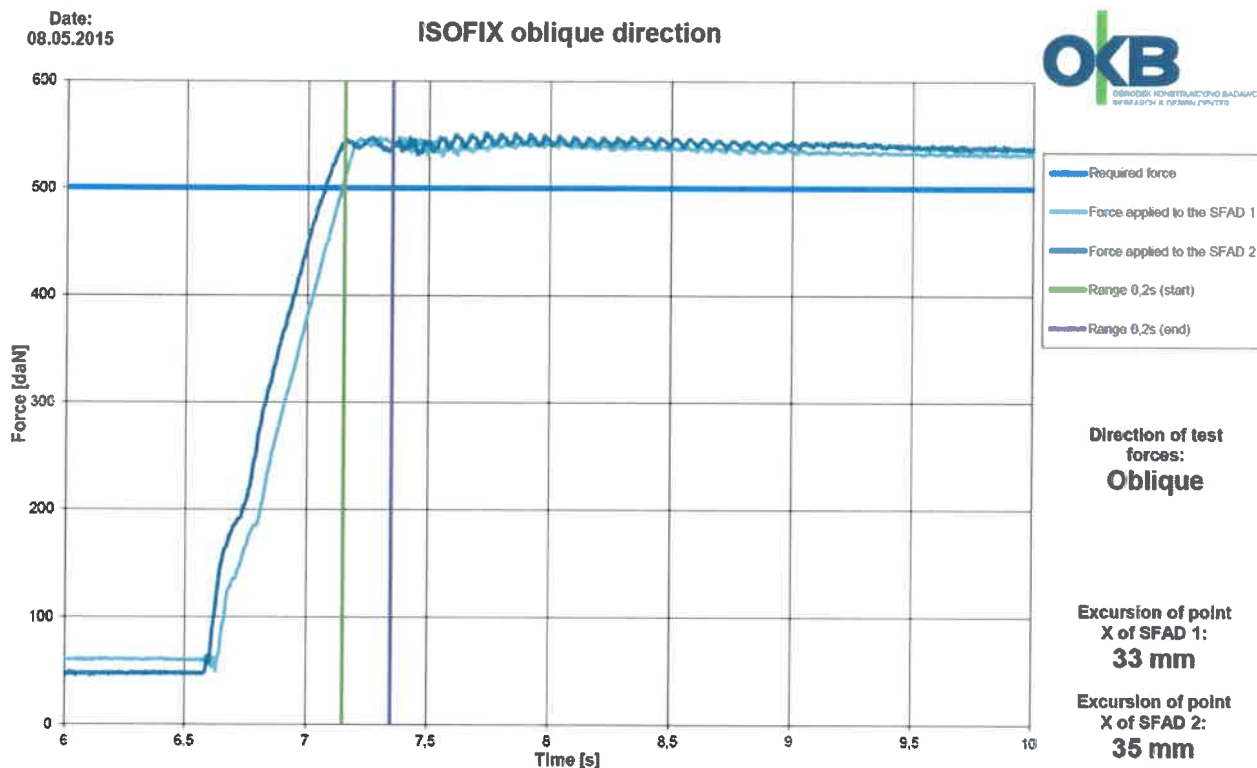
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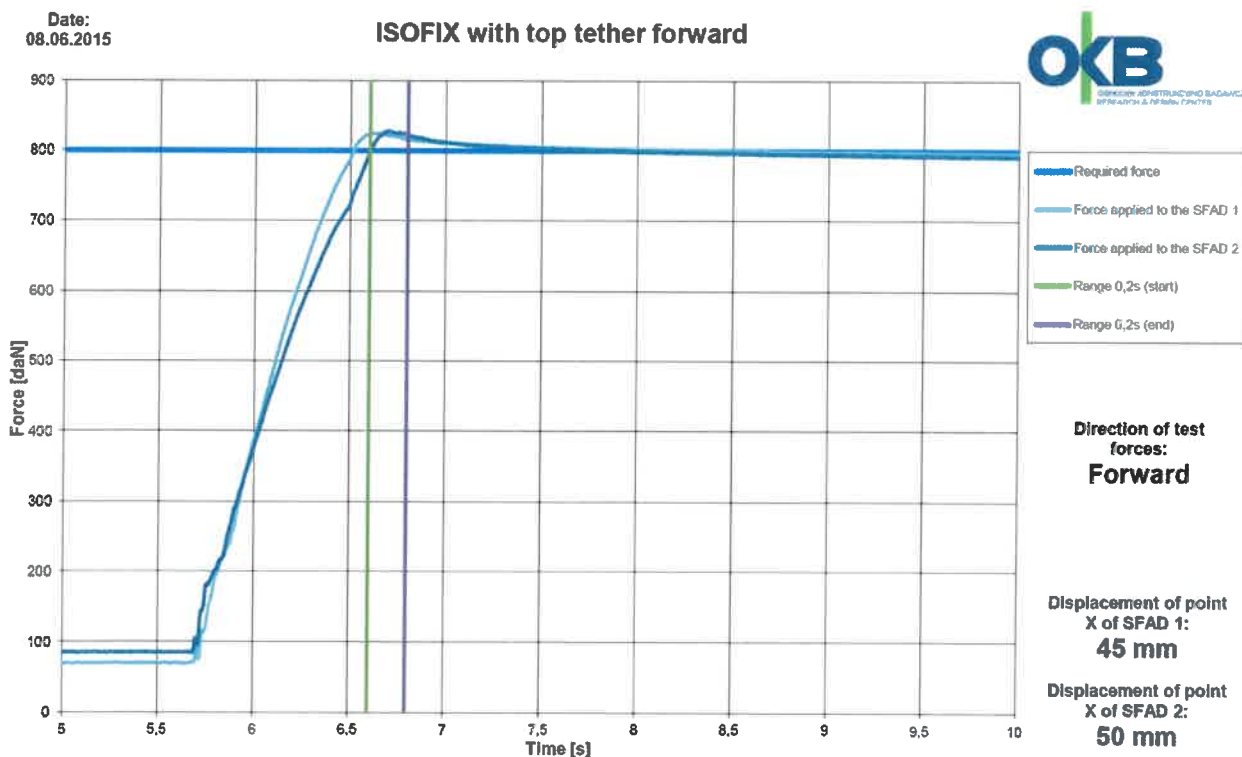
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Test of ISOFIX anchorages on frame SAF04, oblique



Test of ISOFIX and Top Tether anchorages on frame SAF04, front



End of the technical report