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Test Report PB 16-274

on an anchor device of type C
according to EN 795:2012 and CEN/TS 16415:2013
Type: ABS-Lock[®] SYS (Ø 6 mm)

Client: ABS Safety GmbH
Gewerbering 3
47623 Kevelaer
Germany

**Testing officer
responsible:** Jens Böhm, BEng

This test report consists of 6 pages and shall only be relayed entirely and unabridged and only with prior written permission of the DEKRA EXAM Test Laboratory for Component Safety.

1 General

1.1 Client:

ABS Safety GmbH, Gewerbering 3, 47623 Kevelaer, Germany

1.2 Order commission:

Written application of 11.04.2014

1.3 Scope of the order:

Technical report on an anchor device of type C according to DIN EN 795:2012 and CEN/TS 16415:2013, type: ABS-Lock® SYS (Ø 6 mm).

NB:

The purpose of the tests carried out was to determine the response of the anchor device if the distance between two end anchors is 21 m. The tests at the basic variant of the system are documented in test report PB16-105 of the DEKRA EXAM Test Laboratory for Component Safety.

1.4 Place and date of the examination

The dynamic and static tests were carried out in situ at the company ABS Safety GmbH, Gewerbering 3, 47623 Kevelaer, Germany, on 15.11.2016.

1.5 Samples and documents submitted:

Anchor device type: ABS-Lock® SYS (Ø 6 mm),
reg. no. PFB 16-1274 of 15.11.2016.

1.6 Description of the anchor device

The anchor device of type ABS-Lock® SYS (Ø 6 mm) is used to protect people against falls from a height. The anchor line is a wire rope of Ø 6 mm (variant 7 x 7) made of corrosion-resistant steel.

The user secures himself against falls from a height by connecting his own PPE to the mobile anchor point of type UniGlide (Fig. 1). This anchor point can only be fixed on or removed from the anchor line by two independent hand movements.

At both ends, the anchor line is equipped with a screwed end connector (Fig. 2).

The wire-rope system is mounted on supports of type ABS-Lock® X-SR (Fig. 3).

The tensioning device (Fig. 4) is used to pretension the anchor line.



Fig. 1: mobile anchor point, type UniGlide



Fig. 2: end connector



Fig. 3: ABS-Lock® X-SR



Fig. 4: tensioning device

2 Tests

The anchor device was mounted onto a test facility that simulated a structure. Test layout A shows the direction of the forces applied and the points at which the forces were applied. Details of the test layout are shown in Fig. 5-6.

Test layout: ABS-Lock® SYS (Ø 6 mm), large area (21 m)

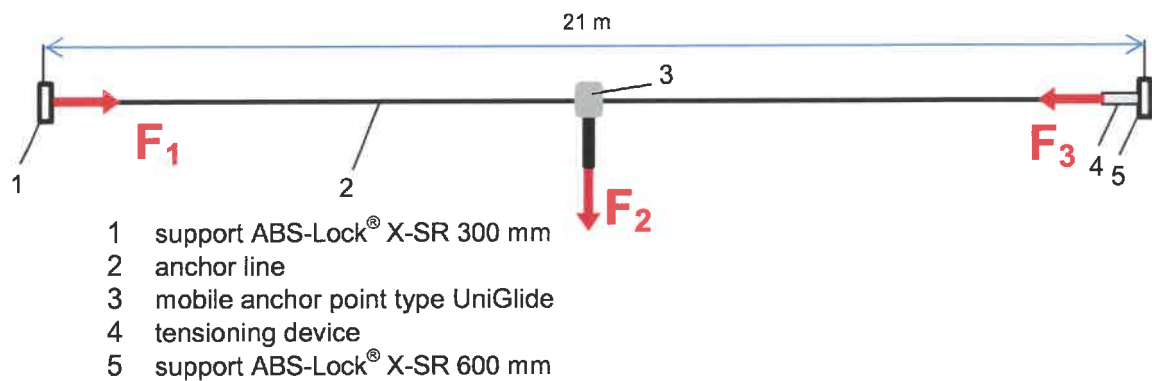


Fig. 5-6: details of test layout

2.1 Special conditions for anchor devices

2.1.1 Test for dynamic strength and integrity following

(No. 4.4.3.3 DIN EN 795:2012 and No. 4.2.3.1 DIN CEN/TS 16415:2013)

2.1.2 Test for static strength following

(No. 4.4.3.5 DIN EN 795:2012 and No. 4.2.3.4 DIN CEN/TS 16415:2013)

3 Test results

3.1 Special conditions for anchor devices

3.1.1 Test of dynamic strength and integrity

The anchor device of type ABS-Lock® SYS (Ø 6 mm) was mounted to a rigid surface. For the test of dynamic strength, a test mass (steel weight) of 200 kg was dropped to generate an arresting force of 12 kN. Immediately after that, another test was done with a pre-load of 200kg, this time using a test mass (steel weight) of 100 kg to generate an arresting force of 9 kN. Similarly to this procedure, another test was carried out using a pre-load of 300 kg and a test mass (steel weight) of 100 kg to generate an arresting force of 9 kN. In each case a dynamic mountaineering rope compliant with EN 892:2004 was used. Immediately after the test for dynamic strength of the anchor device the test for integrity was carried out. Here, the anchor device was loaded with a rigid test mass (steel) of 900 kg over a period of 3 min. The test results are documented in Table 1.

Table 1: results of the tests for dynamic strength and integrity

Person	F1 [kN]	F2 [kN]	F3 [kN]	Pre-load [kg]	Deflection anchor line [mm]		Result
					dyn.	stat.	
1. and 2.	13.74	8.23	13.99	-		2960	Test mass was arrested, and held for 3 min after the arrest for the integrity test
3.	11.17	6.44	10.97	200	*1)	3045	
4.	11.71	6.97	11.75	300		3070	

*1) no measurement taken

3.1.2 Test of static strength

The test of static strength was carried out at the anchor device type ABS-Lock[®] SYS (Ø 6 mm) applying a test force of 15 kN to the anchor over a period of 3 min. The anchor device resisted the test force over the period stated. The results are shown in Table 2:

Table 2: results of tests for static strength

User	F _{required}	F ₁ in kN	F ₂ in kN	F ₃ in kN	Result
4	15	21.70	14.33	22.27	Load arrested

4 Note

The test results listed above solely refer to the test samples submitted.

Testing officer responsible:



Jens Böhm, BEng