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Testing of cable break device

The revision of this report consist of changing from the word spring to cable in the text in section 3.

1 Introduction

SP has been commissioned by DOCO to perform tests on cable break device for doors.

Place of testing: DOCO test site in Sittard, The Netherlands

Test period: 2009-06-23

2 Test object

Test object	Description	Test door	Mass [kg]
DOCO Art No. 25455	Cable break device for industrial doors	Doco high lift test rig for cable break device, see figure 1	550

The tested objects were selected by the client without assistance from SP

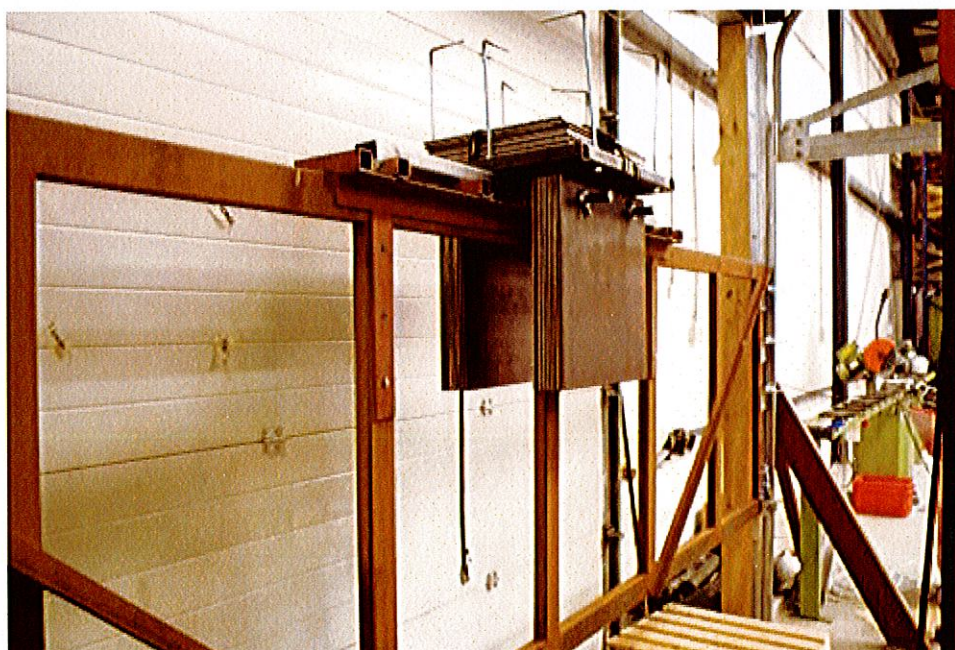


Figure 1 Test set up

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3 Test performance

The door was tested in accordance with *EN 13241-1* and *EN 12605:2000, 5.1.2* and *5.4.2* Safe opening test. Rupture in the balancing system was simulated by cutting one wire. Before the test the balanced door was stopped approximately 0.7 m above the floor in its most onerous position and measurements were performed in order to determine the distance the door came down after rupture in one cable was simulated. The total door leaf weight of the tested door was with 10% overload which gives the maximum door weight.

4 Test results

The results from the tests are shown in Table 1. The test results in this report are only valid for the tested objects.

Table 1 Testing of cable break device DOCO Art No. 25455

Test No.	Test date	Test door leaf weight [kg]	Door dropped ¹⁾ [mm]	Remark	Maximum door weight [kg]	Requirement fulfilled
1	2009-06-23	550	45	Small deformation on knife arm	500	Yes
2	2009-06-23	550	40	Small deformation on knife arm	500	Yes
3	2009-06-23	550	65	Small deformation on knife arm	500	Yes

Note 1 Requirement less than 300 mm

5 Measurement uncertainty

The total calculated measurement uncertainty for the weight < 2% and for length > 1 %. Reported uncertainty corresponds to an approximate 95 % confidence interval around the measured value. The interval has been calculated in accordance with GUM (The ISO guide to the expression of uncertainty in measurements), which is normally accomplished by quadratic addition of the actual standard uncertainties and multiplication of the resulting combined standard uncertainty by the coverage factor $k=2$.

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