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For the attention of: Gina Bogota

Technical Report

Subject: TESTING OF SRL DESCRIBED AS "BLOQUE AUTORETRACTIL DE 2M 6FT

(CODE 500877)" IN ACCORDANCE WITH ANSI Z359.14 - 2014

Our ref: SPC0222213/1407/1 Issue 5 Ext 1

Date: 6th April 2018

This is an extension of report reference SPC0222213/1407/1 Issue 5

Conditions of Issue:

This report may be forwarded to other parties provided that it is not changed in any way. It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

Results given in this report refer only to the samples submitted for analysis and tested by SATRA. Comments are for guidance only.

Tests marked † fall outside the UKAS Accreditation Schedule for SATRA. All interpretations of results of such tests and the comments based upon them are outside the scope of UKAS accreditation and are based on current SATRA knowledge.

A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the customer as a result of information supplied in the report.

Report signed by: D Harrison
Position: PPE Technologist
Department: Safety Product Centre

Harrison





WORK REQUESTED

Samples of self-retracting device, described as "BLOQUE AUTORETRACTIL DE 2M 6FT (CODE 500877)", were received by SATRA on 24th February & 11th August 2014, for testing in accordance with ANSI/ ASSE Z359.14 – 2014 Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems.

Additional samples were received on the 31st March 2017 for testing in accordance with ANSI Z359.14 – 2014 clause 3.1.5 only to verify addition of nickel plating process added to brake pawls would not affect corrosion resistance – see table 2 for results

Testing was initially carried out in accordance with ANSI Z359.14 – 2012 and the clauses shown below in the conclusions section have not changed in ANSI Z359.14 – 2014 to require further testing

CONCLUSIONS

SAMPLE REFERENCE	STANI	OARD	CLAUSE / PROPERTY	SUB CLAUSE / PROPERTY	PASS / FAIL
				3.1.1 Integral Connectors	PASS
				3.1.2 Locking Function	PASS
DI COLIE				3.1.3 Energy Absorption	PASS
BLOQUE AUTORETRACTIL	ANGLZ	2359.14	3.1 General	3.1.4 Visual Indicator	PASS
DE 2M 6FT	- 2014	2339.14	Requirements	3.1.5 Corrosion Protection	PASS
(CODE 500877)	- 2014		Requirements	3.1.6 Retraction Tension	PASS
(CODE 300877)	0		20, 75	3.1.7 Static Strength (SRL)	PASS
	111		L Dall	3.1.8 Dynamic Strength	PASS
OFIL OF	110		NY ~	3.1.9 Dynamic Performance	PASS

TESTING

Testing was carried out in accordance with ANSI Z359.14 – 2014 between 3rd April & 6th November 2014

The retractable lanyard is a class A device and therefore has a maximum fall arrest distance of 610mm

Samples were tested as received, and were not subject to any pre-conditioning processes other than those stated in individual test clauses



Figure 1 – Self-retracting device described as "BLOQUE AUTORETRACTIL DE 2M 6FT (CODE 500877)"





TEST RESULTS

Table 1 – Testing of Self-retracting device described as "BLOQUE AUTORETRACTIL DE 2M 6FT (CODE 500877)" in accordance with ANSI Z359.14 – 2014

ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
3.1.1 Integral Connectors	Snap hooks or carabineers which are integral to self retracting devices shall meet the	Connector is marked as compliant with ANSI Z359.12		PASS
	requirements of ANSI Z359.12	Possibility of rollout minimised	N/A	PASS
	Integral rings or similar openings intended to accept a snap hook or carabineer shall be designed to minimize the possibility of rollout			
3.1.2 Locking Function	Self-retracting devices shall be automatic in their locking function	SRL automatically locks in the event of a fall	U'	PASS
APRIL AP	It shall not be possible to override the self-locking feature of the device when in use	Self-locking mechanism cannot be overridden	N/A	PASS
018 APFIL 2018	The design of the device shall prevent the possibility of performance being impaired by casual interference	Casual interference would not impair the performance of the device	18 AI XPRIL XPRIL	PASS
3.1.3 Energy Absorption	Self-retracting devices which have an energy absorption function shall be designed so that it works across the whole range of the device	Energy absorption is provided across the whole range of the device	N/A	PASS
3.1.4 Visual Indicator	Self-retracting devices shall have a visual indicator that will activate in accordance with the requirements of section 3.1.9	Visual indicator is included Indicator deployed successfully following each dynamic performance test	N/A	PASS

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PPE Technologist
Safety Product Centre
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ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	018 501	UoM (See note 1)	PASS / FAIL
3.1.5 Corrosion	Protection, at a	Corrosion test in acco	ordance with		
Protection	minimum, shall allow	ASTM B 117-07a-9	6 hours Neutral		
	the device to operate as	Salt Spray			
	intended and show no				
	signs of corrosion	Temperature: 35 °C			
	which, left unchecked,	Fall out rate: 1.0 ml/h			
	could result in a	pH of test solution: 7.			
	corrosion related failure	Specific gravity of tes	st solution: 1.032		
	of the device after being	Sample 1			
	salt spray tested for 96				
	hours. Following the salt	White & black scaling			
	spray test the device	connector only. No of			PASS
	shall pay out the line, retract and lock	evidence of any corro	osion present		
	retract and lock	Retraction tension fol	lowing corrosion		
		Length of line (m)	Force (N)		
		0.305	8.5		
		0.354	10.0		
		0.708	16.0	±2.0%	
	p, ~7p, ~c	1.062	14.5	0' . (
	. 20' . 20	1.416	11.0	-011	
	211- 2211-	1.770	14.5	VBL.	
	L. API. a P	Sample 2	18 14.5	N 019	3 1
	0/2,00/2	WH : 0 11 1 1:	,,,,50,,	, 20.	
	21	White & black scaling		111	
	OKIL DKI	connector only. No of		OPI	
	Dr. 18 W	evidence of any corro	osion present	110,	
	50101 50	Retraction tension fol test	llowing corrosion	DRIL	PASS
	VIII DAVI	Length of line (m)	Force (N)) , a	11.155
	12 12 12 12 1	0.305	17.5	2019	
	V10, VV10	0.354	14.0	120	
	0 11 12 11	0.708	18.0	IL OF	
	ORIL ORIL	1.062	19.5	O Dr	
	M. O M.	1.416	25.5	10,	
	$\alpha' \sim 10^{\circ}$	1.770	19.5	9	

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ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	018 201	UoM (See note 1)	PASS / FAIL
3.1.5 Corrosion	Protection, at a	Sample 3			
Protection	minimum, shall allow				
	the device to operate as	White & black scaling	g present on		
	intended and show no	connector only. No ot			
	signs of corrosion	evidence of any corro	sion present		
	which, left unchecked,				
	could result in a	Retraction tension fol	lowing corrosion		
	corrosion related failure	test		±2.0%	PASS
	of the device after being	Length of line (m)	Force (N)		
	salt spray tested for 96	0.305	7.0		
	hours. Following the salt	0.354	7.5		
	spray test the device	0.708	11.0		
	shall pay out the line,	1.062	13.0		
	retract and lock	1.416	20.0		
		1.770	18.0		

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2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS		UoM (See note 1)	PASS FAIL
3.1.6 Retraction	Retraction tension of the	Sample 1			
Tension	self-retracting device	•			
	line, shall not be less	Length of line (m)	Force (N)		
	than 1.25 pounds	0.305	14.20		
	(5.55N) or more than 25	0.26	9.90		
	Pounds (111.1N) at any	0.52	17.55		
	point in the range of	0.79	22.00		
	motion provided by the	1.05	19.80		
	line constituent	1.30	20.70		
	SRL-LE's shall retract without stopping when tested in a horizontal orientation	300mm lanyard length extracted from device Sample 2	permanently)G	
		Length of line (m)	Force (N)		
	For SRL's and SRL-R's,	0.305	14.20		
	no more than 24 inches	0.26	13.35		
	(610mm) of the line can	0.52	11.90	. 0. 420/	D . CC
	remain extended when	0.79	19.20	±0.43%	PASS
	the device is fully	1.05	22.85	(1)	
	retracted.	1.30	21.40		
	For SRL-LE's, no more than 60 inches (1.5m) of the line can remain	300mm lanyard length extracted from device	permanently	Pb/2	
	extended when the	Sample 3			
	device is fully retracted	Length of line (m)	Force (N)	OAY	
	Dr. a M	0.305	6.0	120, V	
), ~U ₁ , ~U ₁	0.354	6.5	λ , " ,	
	1 20 1 20	0.708	11.0	DOIL	
		1.062	9.5	KYV.	
	AIL OLAIL	1.002	7.5		
	APKIN A	1.416	15.5	~ ~ 18	







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ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
3.1.7 Static Strength	Self-retracting devices shall withstand a tensile load of 3,000 pounds (13.3kN) statically applied	Sample 1 13.3kN sustained for 1 minute without failure Sample 2 13.3kN sustained for 1 minute without failure	± 0.37% See note 2	PASS
		Sample 3 13.3kN sustained for 1 minute without failure		
3.1.8 Dynamic Strength	SRL's & SRL-LE's shall lock, remain locked until released and the test weight shall not strike the ground	Sample 1 136kg test mass held Additional information only)G	
	For SRL's and SRL-R's, the line shall retain a minimum of 1,000 (4.4kN) of residual tensile strength after the dynamic test	Arrest distance: 2.0m Residual strength: 4.4kN sustained following dynamic strength test without failure Sample 2 136kg test mass held	D. APRIL	
	APRIL 20 APRIL	Additional information only Arrest distance: 1.87m	± 4.0% See note 2	PASS
	PIL 2019 PRIL 20	Residual strength: 4.4kN sustained following dynamic strength test without failure Sample 3	JPRIL	
	APRIL APRIL	136kg test mass held Arrest distance: 1.75m	18 APF	
	11 2010, 201	Residual strength: 4.4kN sustained following dynamic strength test without failure	PRIL	







ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
3.1.9 Dynamic	SRL's & SRL-LE's	Sample 1		
Performance	shall not exceed an arrest distance of 24 inches (610mm) and the average arresting force shall not exceed 1,350 pounds (6kN) or a	128kg test mass held Peak arrest force: 4.1kN (see figure 2) Arrest distance: 0.31m Average arrest force: 3.40kN		
	maximum peak of 1,800			
	pounds (8kN) for class A devices	Device still able to retract in accordance with clause 3.1.6 Visual indicator deployed		
	The locking function	Sample 2		
	must operate and the	CLINIOIC		
	device must pay out and retract the line after every dynamic performance test	Peak arrest force: 5.5kN (see figure 3) Arrest distance: 0.36m Average arrest force: 3.62kN	Force ±0.37% Height	PASS
2018 1. 201	311 2010 1 20	Device still able to retract in accordance with clause 3.1.6 Visual indicator deployed Sample 3	±0.22%	2U.
APICO AS AL	018 pr. 018 P	128kg test mass held	201	50
AL SAPRIL	APRIL APRIL	Peak arrest force: 4.8kN Arrest distance: 0.29m Average arrest force: 3.45kN	18 AP	18 P
070 2076	211 20 12 20 211 20 12 20	Device still able to retract in accordance with clause 3.1.6 Visual indicator deployed	PRIL 18	APRII







	OBIL OKIL	BL. MI	O DY	a Di
ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
3.1.9 Dynamic	The visual indicator	Sample 1		
Performance	shall activate when	Wet conditioning: sample sprayed with		
(continued)	dynamic performance is	70 litres/hour of water for 3 hours. Test		
	tested and give clear	carried out within 90 seconds of removal		
	evidence that the device			
	has been impact loaded	128kg test mass held		
	The dynamic	Device still able to retract in accordance		
	performance	with clause 3.1.6		
	requirements shall also	Visual indicator deployed		
	be met after	visual indicator deployed		
	conditioning to heat,	Peak arrest force: A StN (See figure 5)		
	,	Peak arrest force: 4.8kN (See figure 5)		
	cold & wet, where the	Average arrest force: 3.91kN		
	average arresting force	Arrest distance: 0.21m		
	shall not exceed 1,575	Sample 2		
	pounds (7kN) or a	Wet conditioning: sample sprayed with		
	maximum peak of 1,800	70 litres/hour of water for 3 hours. Test		
	pounds (8kN) for Class	carried out within 90 seconds of removal	_	
	A devices		Force	
	451	128kg test mass held	±0.37%	
	PIL 2010 APRIL 20	Device still able to retract in accordance with clause 3.1.6 Visual indicator deployed	Height ±0.22%	PASS
	2018 M 2018 M	Peak arrest force: 4.3kN (See figure 6) Average arrest force: 3.47kN Arrest distance: 0.29m	11 20 V	
	18 -18 m	Sample 3	170	
	00,00	Wet conditioning: sample sprayed with	_ //_	
	11 - 12	70 litres/hour of water for 3 hours. Test	OFTIL	
	BILL VEKILL V	carried out within 90 seconds of removal	XL, YO	
	018 10018 1	128kg test mass held	50,10	
	-all -all	Device still able to retract in accordance	V P	
	VAL. VAL.	with clause 3.1.6	281	
	18 m 201	Visual indicator deployed	7	
	IL 20 PRIL 20	Peak arrest force: 5.1kN (See figure 7) Average arrest force: 3.86kN Arrest distance: 0.25m	PRIL.	

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ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
3.1.9 Dynamic	The visual indicator	Sample 1		
Performance	shall activate when	Cold conditioning: sample placed in a		
(continued)	dynamic performance is	freezer at -40°C for 2 hours. Test carried		
	tested and give clear	out within 90 seconds of removal		
	evidence that the device			
	has been impact loaded	128kg test mass held		
	The dynamic	Device still able to retract in accordance		
	performance	with clause 3.1.6		
	requirements shall also	Visual indicator deployed		
	be met after	1 3		
	conditioning to heat,	Peak arrest force: 3.3kN (See figure 8)		
	cold & wet, where the	Average arrest force: 2.82kN		
	average arresting force	Arrest distance: 0.27m		
	shall not exceed 1,575	Sample 2		
	pounds (7kN) or a	Cold conditioning: sample placed in a		
	maximum peak of 1,800	freezer at -40°C for 2 hours. Test carried		
	pounds (8kN) for Class	out within 90 seconds of removal		
	A devices		Force	
		128kg test mass held	±0.37%	
	ρ, ~/D, ~C		0, '	7
	. 201 . 2	Device still able to retract in accordance	Height	PASS
	211	with clause 3.1.6	±0.22%	
	L. String	Visual indicator deployed	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
	2012, 0010.	Peak arrest force: 4.6kN (See figure 9)	v 50.	
	21 21	Average arrest force: 3.80kN	11 0	
	ORIV DKI	Arrest distance: 0.20m	OPL	
	Dr. O Di	Sample 3	10,	
	D' -010' ~0'	Cold conditioning: sample placed in a), '' (
	. 20 20	freezer at -40°C for 2 hours. Test carried	0211	
	all all	out within 90 seconds of removal	BL.	
	API OF	out within 70 seconds of removar	~, ~16	
	012, 0012;	128kg test mass held	(30)	
	all sall	Device still able to retract in accordance	NPY	
	DKI DKI.	with clause 3.1.6	185	
	18 1001	Visual indicator deployed	, 2	
	11 20 21	Peak arrest force: 5.7kN (See figure 10)	OPIL	
	IL BLILL	Average arrest force: 3.82kN	N a	
	a Pi .a Pi	Arrest distance: 0.35m	-010	







Lagh	OBIL ORIV	OKI, VOL. VOL.	- Dr.	O DL.
ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
3.1.9 Dynamic	The visual indicator	Sample 1		
Performance	shall activate when	Heat conditioning: sample placed in a		
(continued)	dynamic performance is	heated chamber at 54°C & 85% relative		
	tested and give clear	humidity for 2 hours. Test carried out		
	evidence that the device has been impact loaded	within 90 seconds of removal		
	1	128kg test mass held		
	The dynamic	Device still able to retract in accordance		
	performance	with clause 3.1.6		
	requirements shall also be met after	Visual indicator deployed		
	conditioning to heat,	Peak arrest force: 4.4kN		
	cold & wet, where the	Average arrest force: 3.75kN		
	average arresting force	Arrest distance: 0.37m		
	shall not exceed 1,575	Sample 2		
	pounds (7kN) or a	Heat conditioning: sample placed in a		
	maximum peak of 1,800	heated chamber at 54°C & 85% relative		
	pounds (8kN) for Class	humidity for 2 hours. Test carried out		
	A devices	within 90 seconds of removal	Force ±0.37%	
2481 -01	0, 2010, 20	128kg test mass held	10.5770	
00, 50	1 20 11 1	Device still able to retract in accordance	Height	PASS
2011	SIL OFIL	with clause 3.1.6	±0.22%	
APT QAY	138 Pr , 18 P	Visual indicator deployed	10.2270	
p. 2010	00° 00° .	Peak arrest force: 4.1kN (See figure 12)	11-6	
11 120 011	011-601	Average arrest force: 3.15kN	III D	
SIL OFIL	OHI VELL	Arrest distance: 0.32m	, a Pi	
a Pir.	181	Sample 3	170	
700, 2010	00,10	Heat conditioning: sample placed in a		
10.75		heated chamber at 54°C & 85% relative	OFTIL	
10 D	SIL OFILE	humidity for 2 hours. Test carried out	χ_{L} , α	
Dr. 18 Dr	18 PT 18 P	within 90 seconds of removal	0010	
1, 201, 7	0,21150.	128kg test mass held	L'OF	
AIL DEBIL	Vbhir Vbhir	Device still able to retract in accordance	18 PM	
18 m ~18	1, 40, 20,	with clause 3.1.6) \	
0,2" 50,	11 20 31 20	Visual indicator deployed	ORIL"	
OPIL OF	IL BLILL	Peak arrest force: 5.6kN	W a	
DL. O DL.	18h 18h	Average arrest force: 4.10kN	2070	
, 40,	220	Arrest distance: 0.41m	12	11







Table 2 – Testing of Self-retracting device described as "BLOQUE AUTORETRACTIL DE 2M 6FT (CODE 500877)" with new nickel plated brake pawls in accordance with ANSI Z359.14 – 2014 clause 3.1.5

ANSI Z359.14 – 2014 CLAUSE / TEST	ANSI Z359.14 – 2014 REQUIREMENT	TEST RESULTS	UoM (See note 1)	PASS / FAIL
3.1.5 Corrosion	Protection, at a	Corrosion test in accordance with		
Protection	minimum, shall allow	ASTM B 117-07a– 96 hours Neutral		
	the device to operate as	Salt Spray		
	intended and show no			
	signs of corrosion	Temperature: 35 °C		
	which, left unchecked,	Fall out rate: 1.1 ml/hr		
	could result in a	pH of test solution: 6.4		
	corrosion related failure	Specific gravity of test solution: 1.030		
	of the device after being	Sample 1		
	salt spray tested for 96	M-1		
	hours. Following the salt spray test the device	Moderate scaling present on connector only. No other visual evidence of any		
	shall pay out the line,	corrosion present	±2.0%	PASS
	retract and lock	corrosion present	±2.0%	PASS
		Retraction tension following corrosion		
		test		
0 100	12.1	Length of line (m) Force (N)		
2481 -01	0. 2010 00	0.305 8.35	0 "	
10, 70	11 20 011 1	0.37 6.50	OBIL	
DOIL O	SIL DEIL	0.74 8.60	DL,	
DY' - DY	'aprilap	1.11 11.60	, -043	
2181	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1.48 21.45	· 20.	
, 20' .,	20 11 20 11	1.83 17.90	11/201	
211 ORIL	ORIL OPI		OAK	
	NY , a DI	See note 3	AYO'	

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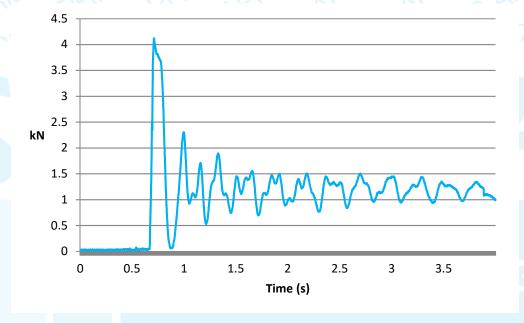


Figure 2 – Dynamic performance test: Graph of force vs. time

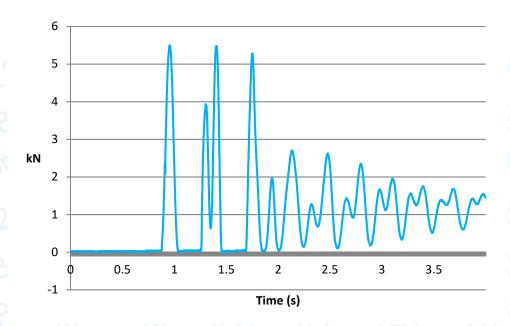


Figure 3 – Dynamic performance test: Graph of force vs. time

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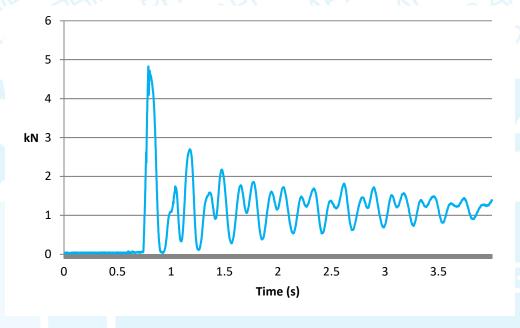


Figure 5 – Dynamic performance test: Graph of force vs. time

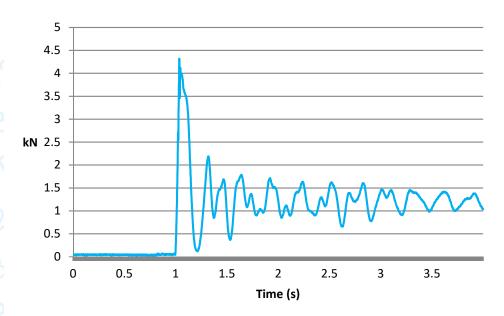


Figure 6 – Dynamic performance test: Graph of force vs. time

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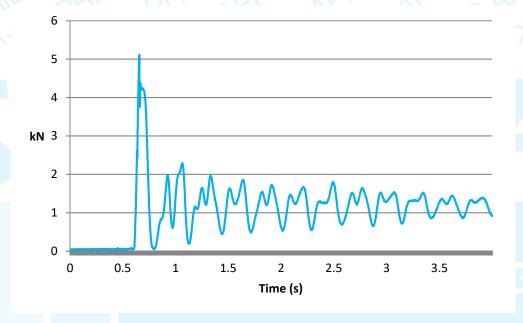


Figure 7 – Dynamic performance test: Graph of force vs. time

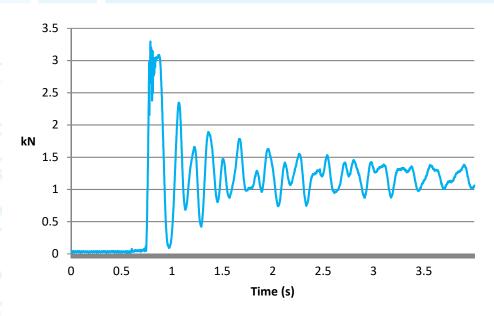


Figure 8 – Dynamic performance test: Graph of force vs. time

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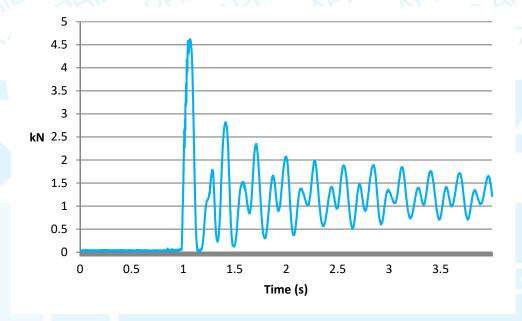


Figure 9 – Dynamic performance test: Graph of force vs. time

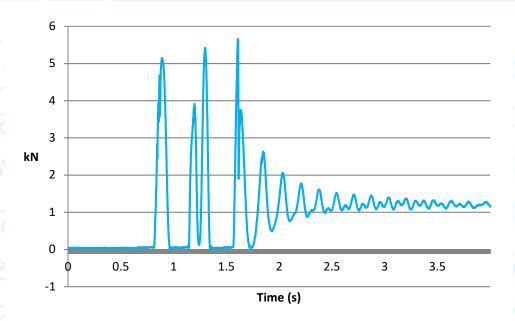
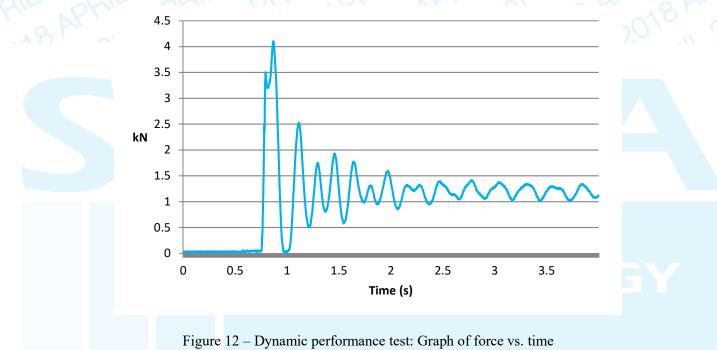


Figure 10 - Dynamic performance test: Graph of force vs. time









ADDITIONAL INFORMATION / NOTES

Note 1 – 'UoM' denotes estimated Uncertainty of Measurement for stated test results. This uncertainty value is based on a standard uncertainty multiplied by a coverage factor k=2, which provides for a confidence level of approximately 95%

Note 2 – Estimated uncertainty of measurement applied at point of test (e.g. to applied force or to tolerance limits) to ensure product meets requirements of the standard

Note 3 – Testing carried out under job reference SPC0256038/1714

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TERMS AND CONDITIONS OF BUSINESS

1. GENERAL

Work done or services undertaken are subject to the terms and conditions detailed below and all other conditions, warranties and representations, expressed or implied are hereby excluded.

PRICES

Prices are based on current material and production costs, exchange rates, duty and freight and are subject to change without notice.

3. DELIVERY ESTIMATES

Delivery estimates are made in good faith and date from receipt of a written order and full information to enable us to proceed. While SATRA or its subsidiaries (hereafter referred to as "SATRA") make every effort to fulfil them, such estimates are subject to unforeseen events and if not maintained, cannot give rise to any claim. Offers "ex stock" are subject to prior sale.

4. CANCELLATION AND RETURNS

Cancellation of orders for goods, services, training or consultancy is only acceptable by prior agreement of <u>SATRA</u> and a charge will normally be made.

5. CLAIMS

Claims for errors, shortages etc should be notified within 10 days of date of receipt. In the event of goods damaged in transit, packing materials should be retained for examination; otherwise no liability can be accepted.

6. PAYMENT TERMS

Payment terms are net 21 days from date of invoice. Failure to comply with the terms of payment may result in delayed delivery of goods and services and a review of the Customer's credit account. Should the customer become subject to an administration order, or becomes bankrupt or goes into liquidation, SATRA has a right to cancel any contract and discontinue any work. SATRA reserves the right to adjust US Dollar and Euro sales price where customer exceeds credit terms and where the exchange rate has moved more than 10% since invoicing.

7. RETENTION OF TITLE

All goods remain the property of SATRA until paid in full. Under no circumstances will a customer's purchase order override SATRA's Retention of Title clause. In the case of software, the ownership of the software remains with SATRA. Payment of invoices in full will entitle the customer to use the software under licence until (a) they cease to be a member of SATRA or (b) they cease trading. In both instances, the licence shall then revert to SATRA.

8. GUARANTEE

All goods manufactured by SATRA are guaranteed both as regards material and workmanship. Any part returned carriage paid, within twelve months from date of supply and found defective, will be repaired or replaced at SATRA's option free of charge. SATRA admits no liability for loss, damage or delay consequent on any defect in any goods supplied by SATRA.

9. TEST REPORTS

Results given in test reports refer only to samples submitted for analysis and tested by SATRA. A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the Customer as a result of information supplied in a test report.

10. TEST SAMPLES

Unless otherwise agreed in advance, test samples will be disposed of 6 weeks after the date of the final report. If required, samples can be returned at the Customer's expense.

11. RESPONSIBILITY

Every effort is made to ensure accuracy in description, drawings and other information in correspondence, catalogues, etc but no warranty is given in this respect and SATRA shall not be liable for any error therein. SATRA carries out all tests and/or advises only on the basis that the same are carried out, made or given without any responsibility whether for negligence or otherwise. SATRA and its servants or agents will not be liable for any damage or loss direct or indirect of whatsoever kind, whether or not the same results directly or indirectly from negligence on the part of SATRA or its servants or agents.

12. CONFIDENTIALITY

Unless specifically excluded in the terms of an individual contract between SATRA and its Customer, the following shall apply to all reports, advice, drawings, photographs, specifications or data:

- i. The above shall not be disclosed to third parties or used in litigation without the consent of SATRA.
- ii. Where SATRA has given consent to disclosure, the Customer shall draw the attention of the third party to these terms of business and the basis on which SATRA undertakes test, reporting and advising. The Customer shall indemnify SATRA for any failure to do so.
- iii. The above items are submitted to the Customer as confidential documents. Confidentiality shall continue to apply after completion of the business, but shall cease to apply to information or knowledge which may come into the public domain.

13. CONSTRUCTION AND ARBITRATION

The laws of England shall govern all contracts and the parties submit to exclusive jurisdiction of the courts of England, unless otherwise agreed.

Report by: Dan Harrison VICSA Steelpro SPC0222213/1407/1 Issue 5 Ext 1 6th April 2018 Signed: D Harrison PPE Technologist Safety Product Centre Page 18 of 18

