Demon Cato

Test Report

Report No	286/7226597
Client;	Demon Cato Ltd 10 Dryden Road Bilston Glen Industrial Estate Edinburgh EH21 9LZ
Authority & date	Quotation Acceptance from client Quotation Number BSI 0000137364 dated 21 May 2008 Equipment Number 10098804
Items tested	Steel Conduits and Fittings
Specification	BS EN 61386-21:2004 Clauses 6, 8, 9, 10.7, 10.8, 11.2, 14.1 and 14.2 Independent test
Results	See Summary of Results on Page 2
Prepared by	L J Carrington Test Engineer
Authorized by	G R Essam Principal Engineer
Issue Date	4 September 2008

Conditions of issue

UKAS TESTING 0135

BSI Product Services Maylands Avenue Hemel Hempstead Hertfordshire HP2 4SQ Telephone: (08450) 765600

TESTING, EXAMINATION AND ASSESSMENT OF STEEL CONDUITS SUBMITTED AS INDEPENDANT TEST SAMPLES

INTRODUCTION

At the request of Demon Cato Limited the steel conduits detailed below, were tested and assessed against the requirements of BS EN 61386-21:2004 Clauses 6, 7, 8, 9, 10.7, 10.8, 11.2, 14.1 and 14.2 from 21 July 2008, as indicated on the following pages of this report. This request was made in a Quotation Acceptance from the client Quotation Number BSI 0000137364 and dated 21 May 2008. It is emphasized that assessments were not made against the other clauses of the Specification. This Report only relates to the actual samples which have been tested and assessed. The results obtained do not necessarily relate to samples from the production line and in no way imply that the performance or quality of the continuing production will be maintained.

TEST ITEMS

10 off consecutive lengths of 20mm diameter steel conduit with associated fittings
10 off consecutive lengths of 25mm diameter steel conduit with associated fittings

EXAMINATION AND TEST

CLAUSE **ASSESSMENT**

7. MARKING

7.6 The marking shall be durable and easily legible. Pass

8. DIMENSIONS

The external diameters were checked with gauges detailed in IEC 60423. Pass

Nominal Size	Dimension	Specified	Actual
20mm	Inside Diameter (mm)	-	16.14 -
	Wall thickness (mm)	-	1.33 -
25mm	Inside Diameter (mm)	-	21.08 -
	Wall thickness (mm)	-	1.89 -

9. CONSTRUCTION

9.1 Within the Conduit System there shall be no sharp edges, burrs or surface projections which are likely to damage insulated conductors or cables or inflict injury to the installer or user. Pass

10. MECHANICAL PROPERTIES

10.7 Tensile test

The Conduits and Fittings were tested in accordance with the method described in this clause. When a tensile force of 1000N and 500N (Heavy and medium grade) was applied for 2 mins the samples remained properly assembled to the conduit and there was no damage visible to normal or corrected vision without magnification.

Nominal Size	Actual Force Held (N)	
20mm	1000N	
Pass		
25mm	500N	Pass

EXAMINATION AND TEST (Continued)

CLAUSE		ASSESSMENT
10.8	**Suspended load test**	
	The Conduit Fittings were tested in accordance with the method described in this clause. When a load of 450N was applied for 48 hours the samples were deemed to have passed as there were no cracks visible to normal or corrected vision without magnification and there was no deformation of the conduit impairing its use.	Pass
11	**ELECTRICAL PROPERTIES**	
11.2	**Bonding test**	
	The Conduits and fittings were tested in accordance with the method described in this clause. The resistance was not greater than 0.1 Ω.	Pass
14.	**EXTERNAL INFLUENCES**	
14.1	**Degree of protection provided by enclosure (IP testing)**	
	The IP rating for this product was IP30	Pass
14.2	**Resistance against corrosion**	
14.2.2	**Tests for resistance to corrosion for steel and steel composite conduit systems**	
	The steel conduits and fittings were tested in accordance with the method described in clause 14.2.2.1 for high protection. The steel conduits and fittings displayed no signs of corrosion.	Pass