

BIS DobyGrip Wire Rope Suspension System



Northumbria University Test Report

- Independent testing by Northumbria University and witnessed by Lloyds Register.

Other countries

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Customer	Doby Verrolec, Harelaw Industrial Estate, Stanley, County Durham, DH9 8UJ		
Date of test	8 th January 2009		
Object of test	The object of the test was to provide data as to the SWL of the Doby Grip 2 gripper unit, using both 1.2mm 7x7 galvanised wire and 2.0mm 7x7 galvanised wire, ensuring that as a minimum it satisfies the SWL ratio of the current Doby Grip 2 gripper unit.		
Method of test	To test the Doby Grip 2 (original unit with rack) 3 samples of 1.2mm & 2.0mm diameter wire with fixed loops were passed through the gripper unit and a load was then applied using an Instron tensile test machine. Angle pull tests were also carried out on both wire diameters at 15, 30, 45 and 60 degrees.		
Results	1.2mm wire	Load applied 100Kg (5 x Target SWL)	Destruction Test
	Sample 1	Pass	Wire failed at 238Kg
	Sample 2	Pass	Wire failed at 231Kg
	Sample 3	Pass	
	2.0mm wire	Load applied 250Kg (5 x Target SWL)	Destruction Test
	Sample 5	Pass	Wire failed at 345Kg
	Sample 6	Pass	Wire failed at 333Kg
	Sample 7	Pass	
	Angular tests		
	Wire diameter	Angle	Weight of load
	1.2mm	15	58Kg
	1.2mm	30	52Kg
	1.2mm	45	42Kg
	1.2mm	60	30Kg
	2.0mm	15	144Kg
	2.0mm	30	129Kg
	2.0mm	45	105Kg
	2.0mm	60	75Kg

Comments All tested sample Doby Grip size 2 units satisfied the minimum working load as the original Doby Grip 2 gripper unit. In the case of the 1.2mm diameter the results will be used to determine the SWL of the new gripper unit when fitted with 1.2mm diameter wire.

Tested by: 
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Dr. P M Hackney

Customer Doby Verrolec, Harelaw Industrial Estate, Stanley, County Durham, DH9 8UJ

Date of test 7th August 2009

Object of test The object of the test was to provide data as to the SWL of the modified Doby Grip 2 gripper unit following removal of the previous version rack for locating the Gripping wheel, using both 1.2mm 7x7 galvanised wire and 2.0mm 7x7 galvanised wire, ensuring that as a minimum it satisfies the SWL ratio of the current DobyGrip 2 gripper unit

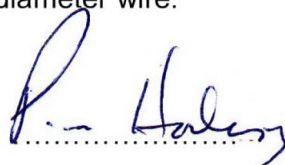
Method of test To test the Doby Grip 2 (current unit with no rack) 4 samples of 1.2mm & 2.00mm diameter wire with fixed loops were passed through the Gripper unit and a load then applied using an Instron tensile test machine. The load was maintained for 5 minutes and then in certain gripper units the load was increased until the wire cable snapped. The failure load was recorded

Results

1.2mm wire	Load applied 50Kg (5 x Target SWL)	Destruction Test
Sample 1	Pass	
Sample 2	Pass	
Sample 3	Pass	Wire failed at 132Kg
Sample 4	Pass	Wire failed at 133Kg
2.0mm wire	Load applied 250Kg (5 x Target SWL)	Destruction Test
Sample 5	Pass	
Sample 6	Pass	
Sample 7	Pass	Wire failed at 371Kg
Sample 8	Pass	Wire failed at 394Kg

Comments All tested sample DobyGrip size 2 units satisfied the minimum safe working load as the original DobyGrip 2 Gripper. In the case of the 1.2mm diameter the results will be used to determine the SWL of the new Gripper unit when fitted with 1.2mm diameter wire.

Tested by:



Dr. P M Hackney