

TÜV Rheinland (Shanghai) Co. Ltd.**Measuring and Testing Equipment List**

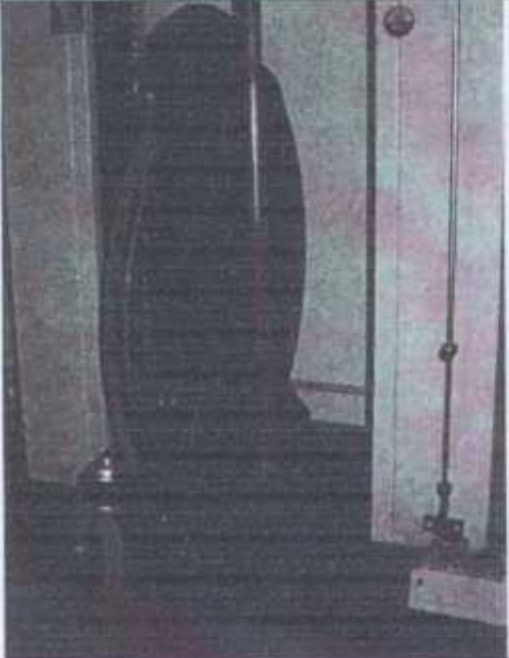

Used MTE

Revision: 08 Nov, 2006

Report Number: Attachment 1 of 15022000 001

Description	MTE Type/model Internal ID	Next Calibration Date
Digital weight balance	TCS-100	29.03.2008
Digital Thermometer	TM6861	02.04.2008
Vernier caliper	L538	27.11.2007
Electron-stopwatch	J9-211 H012	04.11.2007
Steel Tape	L580	04.03.2008
Standard-type Universal Testing Machine	YC120B	11.04.2008
Torque Meter	0410330	28.04.2007

Date and Signature: 12.4.2007*Theodor Wang*

<i>Clause</i>	<i>Test Description</i>	<i>Remark</i>	<i>Result</i>
			
Intrinsic Loading Test (350kg)			

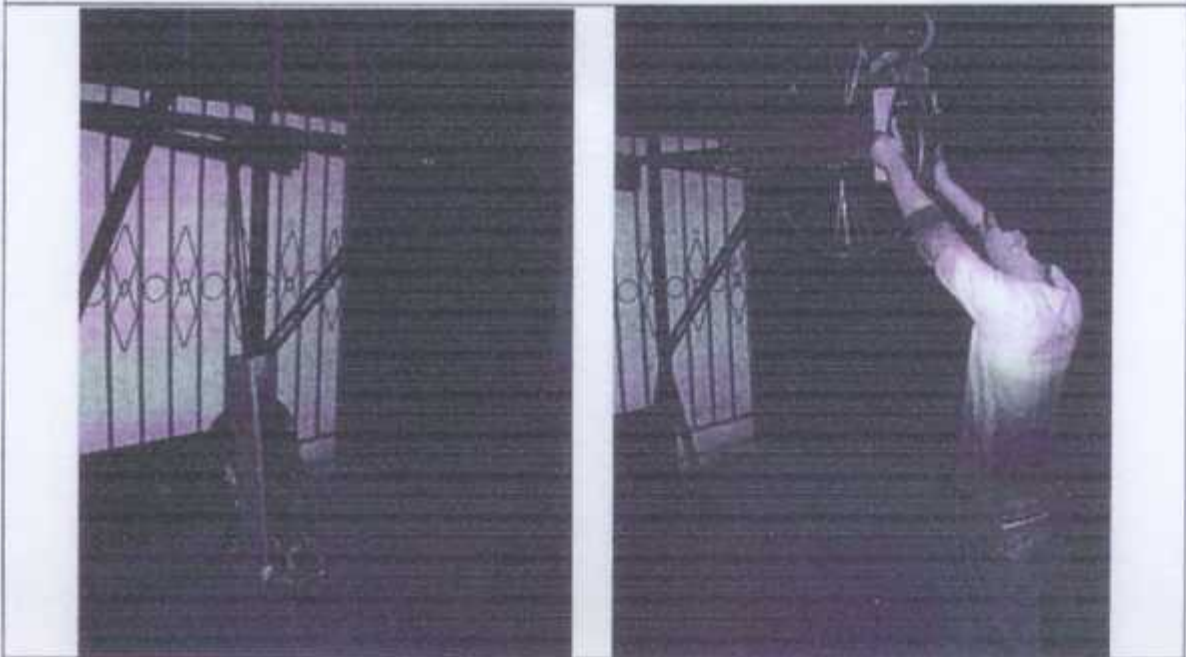
END of Test Report 15022000 001

Clause	Test Description	Remark	Result
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Testing Pictures



Drop Test (20kg)



Impact Test (135J)

Clause	Test Description	Remark	Result
4	Others a) Beautiful out looking, no laceration and no paint bug; b) The wheel should be in middle of frame, and in right condition without tolerance and friction; c) Spokes should be fastened tightly in torque of 0.5-0.6N.m, no screw thread should be outside; d) The all direction wheel should run well, without any block and friction in fixation; e) The bolts in frame center should be in torque of 60N.m.	Ok. Ok. Ok. Ok. Ok.	P

Clause	Test Description	Remark	Result
1	<p>Drop test</p> <p>When tested by the method described in 1.1, there shall be no cracking or burst of the magic wheel.</p>	<p><i>After test, there is no cracking or burst on the magic wheel.</i></p>	P
1.1	<p>Test method</p> <p>Place the magic wheel in a freezing cabinet at a temperature of $-5\pm 1^{\circ}\text{C}$ at least 6 hours. Then remove the magic wheel from the freezing cabinet. Place a piece of rubber which is 17mm thick on the footplate. Drop a 20kg cylindrical mass along a guide tube from a height of 300mm to the footplate for 3 times. The diameter of cylindrical mass is 100mm. This test should be started within 1 min and be finished within 5 minutes.</p>	<p><i>Informative.</i></p>	P
2	<p>Impact test</p> <p>After tested by the method described in 2.1, the magic wheel shall be capable of functioning according to the manufacture's information on the correct use. Distortion on the wheel is allowed after the test.</p>	<p><i>The magic wheel can function normally after test. No visible deformation found.</i></p>	P
2.1	<p>Test method</p> <p>Mount the magic wheel at the cantilever which can freely rotate about the axle in a vertical plane. Rotate the magic wheel about the axle until the potential energy of the assembly reach 135J (e.g. if the counterweight is 13.33kg, the height from the impact point shall be 1.04m). Then allow the assembly to fall freely to impact on the anvil. Repeat the test for 3 times.</p>	<p><i>Informative.</i></p>	P
3	<p>Intrinsic loading test</p> <p>Each footplate of the magic wheel shall withstand 350kg without breakage.</p>	<p><i>No breakage happened after test.</i></p>	P
3.1	<p>Test method</p> <p>Apply the required test load without shock for 5 min in the balance position to one footplate. The load should be applied over a surface area of 90mm \times 90mm in the most onerous position.</p>	<p><i>Informative.</i></p>	P


Prüfbericht - Nr.: 15022000 001 <i>Test Report No.:</i>		Seite 1 von 5 Page 1 of 5	
Auftraggeber: <i>Client:</i>		Qingdao Swico International Co., Ltd B-1605, 49 Qutangxia Road, Qingdao, P.R. China	
Gegenstand der Prüfung: <i>Test item:</i>		Magic Wheel	
Bezeichnung: <i>Identification:</i>	XY3008	Serien-Nr.: <i>Serial No.:</i>	Engineering Sample
Wareneingangs-Nr.: <i>Receipt No.:</i>	N/A	Eingangsdatum: <i>Date of receipt:</i>	N/A
Prüfart: <i>Testing Location:</i>	Wenling Xinghua Electric Vehicle Co., Ltd Daxi Injection Plastic Industrial Zone, Wenling City, Zhejiang, 317525, P.R. China		
Prüfgrundlage: <i>Test Specification:</i>	Test performed according to client's requirements including: 1. Drop test; 2. Impact test; 3. Intrinsic loading test; 4. Others		
Prüfergebnis: <i>Test Result:</i>	Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). The test item passed the test specification(s).		
Prüflaboratorium: <i>Testing Laboratory:</i>	TÜV Rheinland (Shanghai) Co., Ltd.		
geprüft/ tested by:		kontrolliert/ reviewed by:	
12.14.2007	Theodore Wang / PE	12.04.2007	Yiliang Gu / Reviewer
<i>Datum</i> Date	<i>Name/Stellung</i> Name/Position	<i>Unterschrift</i> Signature	<i>Unterschrift</i> Signature
Sonstiges/ Other Aspects:			
Project Order No.: 153074445.		 Gesehen/Reviewed Shanghai TÜV Product Safety GmbH 12.04.2007	
Attachment 1: Measuring and Testing Equipment List (1 page)			
Abkürzungen:	P(ass) = entspricht Prüfgrundlage F(ail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet	Abbreviations:	P(ass) = passed F(ail) = failed N/A = not applicable N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i>			

Photo Documentation

Report Number: 15022000 001

Model: XY3008



Checked by: *Shaoxue Wang*
Signed: *9.4.2007*
TUV Product Safety Center



Photo Documentation

Report Number: 15022000 001

Model: XY3008

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Precisely Right.




 *Handwritten:* 7/10/2007
Shirley Waring
TÜV Rheinland Safety Centre
9.4.2007



Photo Documentation

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Model: XY3008

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Handwritten note:
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9.4.2007

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Handwritten note:
Theodore King
9.4.2007

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Theodore Uberg
9.4.2007



PHOTO DOCUMENTATION

15022000 001


for

Magic Wheel

XY3008

Qingdao Swico International Co., Ltd



 Gesellschafter
Shanghai
TUV Product
Theodore Wang
9-4-2000

This documentation consists of 5 pages (excluding this cover page).