



TEST REPORT EN 1906 Building hardware – Lever handles and knob furniture – Requirements and test methods									
Report reference No.	GZ08070265-2R2 Supersede Report No. GZ08070265-2R1 dated July 21, 2009								
Tested by (name and signature)	Happy Chen <i>Happy Chen</i>								
Approved by (name and signature) ..	John Qiao <i>John Qiao</i>								
Date of issue	July 23, 2009								
Contents	Total test report 9 pages including: Report text: 7 pages Appendix A for product photo(s) and drawings: 2 page(s)								
Testing Laboratory name	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch								
Address	Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China								
Testing location	Same as above								
Applicant's name	BESTKO PRECISION LIMITED								
Address	UNIT 303, BLOCK A, PO LUNG CENTRE, 11 WANG CHIU ROAD, KOWLOON BAY, HONG KONG								
Test specification									
Standard	EN 1906: 2002								
Non-standard test method	N.A.								
Test Report Form No. TTRF EN 1906: 2002 B									
TTRF Originator	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch								
Master TTRF	Dated 2008-01								
Test item description									
LEVER ON ROSE									
Trademark	BESTKO								
Model and/or type reference	3560N								
Manufacturer	BESTKO PRECISION HARDWARE (SHENZHEN) COMPANY LIMITED								
Rating	<table border="1" style="display: inline-table;"> <tr> <td>4</td> <td>7</td> <td>—</td> <td>1</td> <td>0</td> <td>3</td> <td>0</td> <td>U</td> </tr> </table>	4	7	—	1	0	3	0	U
4	7	—	1	0	3	0	U		

Copy of marking plate

								
Model No.:	3560N							
EN 1906	4	7	—	1	0	3	0	U
Manufacturer date:								

Summary of testing

The submitted samples **COMPLIED** with all applicable clauses of EN 1906 for the classification.

Test item particulars
Classification of installation and use : Category of use: Grade 4
Test case verdicts - test case does not apply to the test object : N/A - test object does meet the requirement : P (Pass) - test object does not meet the requirement : F (Fail)
Testing Date of receipt of test item : July 7, 2008 Date (s) of performance of tests : July 7, 2008 to August 18, 2008
General remarks This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program. "(See remark #)" refers to a remark appended to the report. "(See Appendix #)" refers to an appendix appended to the report. Throughout this report a comma (point) is used as the decimal separator. When determining the test result, measurement uncertainty has been considered.
General product information: Detail "Ratings" information listed as following: First digit (Category of use): Grade 4 - High frequency of use on doors which are subject to frequent violent usage. Second digit (Durability): Grade 7 - high frequency of use: 200 000 test cycles. Third digit (Door mass): No classification. Fourth digit (Fire resistance): Grade 1 - Suitable for use on fire/smoke door assemblies (Not evaluated in this report). Fifth digit (Safety): Grade 0 - normal use Sixth digit (Corrosion resistance): Grade 3 - high resistance. Seventh digit (Security): Grade 0 - furniture not approved for use on burglary resistance doors. Eighth digit (Type of operation): type U - Unsprung furniture. Amendment : 1. The original Report No. GZ08070265-2 dated on August 30, 2008 was modified on July 21, 2009 to revise classification of "Fire resistance" and update Testing Laboratory's address. 2. The Report No. GZ08070265-2R1 dated on July 21, 2009 was modified on July 23, 2009 to renew marking plate.

EN 1906			
Clause	Requirement – Test	Result - Remark	Verdict
4	CLASSIFICATION		
4.1	Coding system		—
4.1.2	Category of use:	4	—
4.1.3	Durability	7	—
4.1.4	Door mass No classification	—	—
4.1.5	Fire resistance	1 (Not evaluated in this report)	—
4.1.6	Safety	0	—
4.1.7	Corrosion resistance	3	—
4.1.8	Security	0	—
4.1.9	Type of operation	U	—
5	REQUIREMENTS		
5.1	General		—
5.2	Check of spindle and fastening elements The spindle and fastening elements shall be supplied or specified by the manufacturer with every set of lock or latch furniture. The manufacturer shall state clearly the door thickness or range of the door thicknesses for which the furniture is suitable and in the case of spring assisted and spring loaded furniture, the angle of rotation permitted by the design.	Spindle and fastening elements was supplied by manufacturer. Suitable door thickness: 35 mm to 55 mm.	P
5.3	Rotational torque strength Lock or latch furniture shall show no failure of any component and the lever handles or knobs shall still operate after the test. Lever handles or knobs shall not deform permanently more than 5 mm as measured at 50 mm ± 2mm from the axis of rotation by the dial gauge.	Rotational torque 60 Nm. Permanent deformation: 3,8mm	P

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Clause	Requirement - Test	Result - Remark	Verdict
5.4	Axial strength of lock furniture or latch furniture and fixing There shall be no fail of any component and lever handles or knobs shall still operate after the test. After test the permanent deformation for lever handles or knobs measured at the reference point 75 mm ± 2mm from the axis of rotation shall not increase by more than 2 mm.	Axial load: 1000 N. Permanent deformation: 1,1mm	P
5.5	Free play and safety		—
5.5.1	Requirement of free play The maximum total movement shall not exceed 6 mm.	Maximum movement: 3,8 mm	P
5.5.2	Safety requirement When the lock or latch furniture is fitted to the test block there shall be no sharp edges that can cause injury.	No sharp edges that can cause injury	P
5.6	Free angular movement or misalignment The free angular movement or misalignment shall not exceed 5 mm.	Maximum movement: 3,2 mm	P
5.7	Torque of return mechanism		—
5.7.1	General	See item 5.7.2 and 5.7.4	—
5.7.2	Unsprung and spring-assisted lever handles The torque required to return the unsprung or spring-assisted lever handle back to its intended "at-rest" position shall not greater than 1,5 Nm.	Operating angle: No limit. Maximum torque to operate the lever: 0,5 Nm	P
5.7.3	Unsprung knobs	Unsprung lever handles	N/A

EN 1906			
Clause	Requirement – Test	Result - Remark	Verdict
5.7.4	Spring-loaded lever handles or knobs The torque required to rotate the lever handles or knobs through a maximum of 60° or through the angle of rotation permitted by the design shall not be more than 2,4 Nm. After removal of the torque, the lever handle or knob shall return to its recorded "at-rest" position within $\pm 1^\circ$	Unsprung lever handles	N/A
5.8	Durability of mechanism There shall be no failure of any component and the lever handle or knob shall still operate after test.	Functioned correctly after 200 000 cycles	P
5.9	Repeat test of axial strength of lock or latch furniture and methods of fixing The lock or latch furniture shall meet the requirement of 5.4.	Axial load: 1000 N. Permanent deformation: 1,4mm	P
5.10	Repeat test of free play measurement The lock or latch furniture shall meet the requirement of 5.5.	Maximum movement: 4,3 mm	P
5.11	Repeat test of measurement of free angular movement or misalignment The lock or latch furniture shall meet the requirement of 5.6.	Maximum movement: 3,8 mm	P
5.12	Repeat test of torque of return mechanism The lock or latch furniture shall meet the requirement of 5.7.	Maximum torque to operate the lever: 0,6 Nm	P
5.13	Axial strength for safety furniture (optional)	Not required for normal use lock	N/A
5.14	Corrosion resistance Corrosion resistance shall comply with requirements of EN 1670:1998.	High corrosion resistance No corrosion was found on the significant surface after 96 hours of 5% neutral salt spray exposure	P
8	MARKING		—

EN 1906			
Clause	Requirement – Test	Result - Remark	Verdict
	The product and/or its literature, packaging etc., where indicated, shall be marked with the following —The manufacturer's name or trademark, or other means of positive identification —Product model identification —Classification —The number of this European Standard —The year and week of manufacture	Complied with this requirements See 'Marking on the package'	P
Annex A	Requirements for security lock furniture for use on burglary resistant doors	Furniture not approved for use on burglary resistant doors	N/A
Annex C	Requirements for lock and latch furniture for use on fire/smoke door assemblies	Not evaluated in this report	—

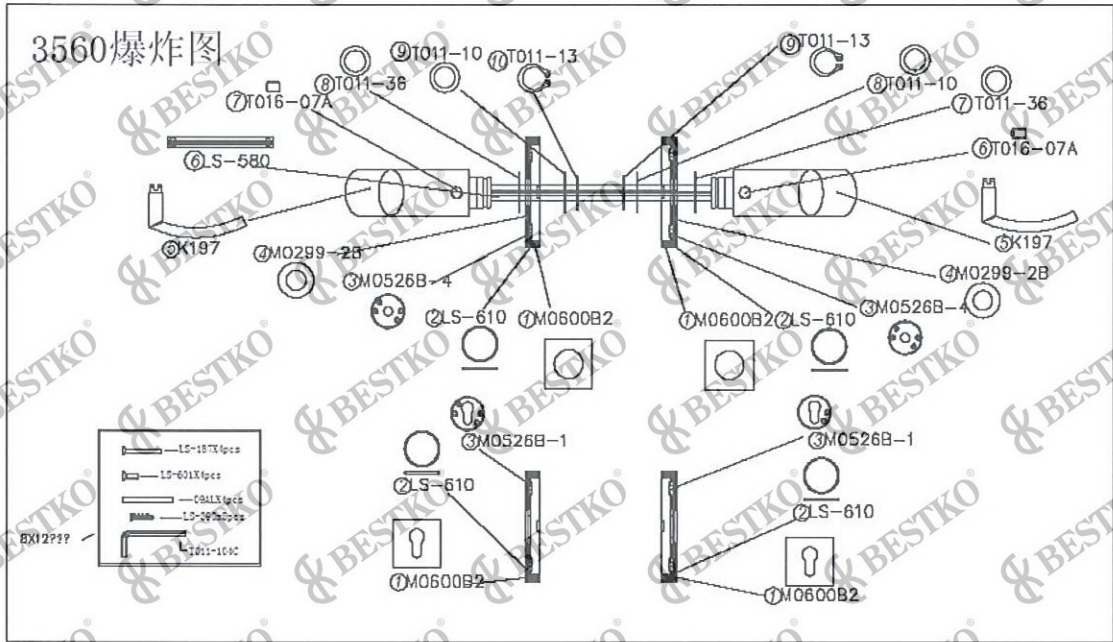
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Appendix A

Product Photos



Product Drawing



*****End of Report*****