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Report

Project Designation

Salt Spray Test acc. to ASTM B117-02 on tilt- and turn fittings with a MACO "TRICOAT" surface

Client

Mayer & CO. Beschläge GmbH
Alpenstraße 173
5021 Salzburg

Order from / No 15.Dec.2005/Order Nr. 51674

Project number 2.03.00569.1.0-02 Test Engineer Ing. R. Meier

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The results relate exclusively to the terms tested.

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Description of project

Salt spray test according to ASTM B117-02 on tilt- and turn fittings
with MACO "TRICOAT" surface.
Temporal sequence of the removal of the samples:: 240, 360, 480, 576, 696, 816, 912 und 1000 h.

Requirements for the MACO " TRICOAT " surface:

Rate of white rust after 600h: max. 5%
Rate of red rust after 1000 h: max. 5%

Test objects

8 pcs. ArtNr. 20621	Trend Drive Gear , size.0
8 pcs. ArtNr. 20635	Corner Element, size A
8 pcs. ArtNr. 202107	Rebated Scissor Stay, size 0
8 pcs. ArtNr. 201486	Tilt Lock Bolt
8 pcs. ArtNr. 97543	Spindle Bar
8 pcs. ArtNr. 201477	Rebated Scissor Stay Support Arm DT 12/18/9
8 pcs. ArtNr. 201475	Scissor Stay Hinge DT 12/18
8 pcs. ArtNr. 201601	Pivot Post DT
8 pcs. ArtNr. 201602	Corner Support DT
8 pcs. ArtNr. 30898	French Casement Tilt Lock

Date of delivery : 22 December 2005
Date of test: 22 December 2005 - 10 February 2006

Test equipment:

Salt spray chamber Heraeus Vötsch SC 1000

Test result

The requirements of the MACO „TRICOAT"surface was fulfilled.
Only on 1 out of 10 Beschlagsteilen (sample Trend gear fix, size.0) corrosion could be noticed after 1000 h of salt spray test. (see Pic. 10, page 8 of this report)

The corrosion (ca. 1%) was below the requirements for the MACO "TRICOAT" surface.

Project Manager ..... Head of Business Field .....

Details regarding the test

Salt spray test according to ASTM B117-02.
Temporal sequence of the removal of the samples: 240, 360, 480, 576, 696, 816, 912 und 1000h.
Temperature of the salt test chamber: 35 °C ± 1 °C
Concentration of salt solution: 5 % NaCl solution (50± 1)g on 1 l distilled water.
pH-value: 6,5 – 7,2.

The salt spray test according to ASTM B117-02, consists of a 1000 h storage of the samples in a salt test chamber with salt mist.
According to the client following time intervals were chosen to remove the samples:
240, 360, 480, 576, 696, 816, 912 und 1000 h.

After each test the samples were washed under streaming water and swilled with distilled water.
Afterwards the samples were put in a climate chamber at 23°C/ 50% rel. humidity for drying.

Test result

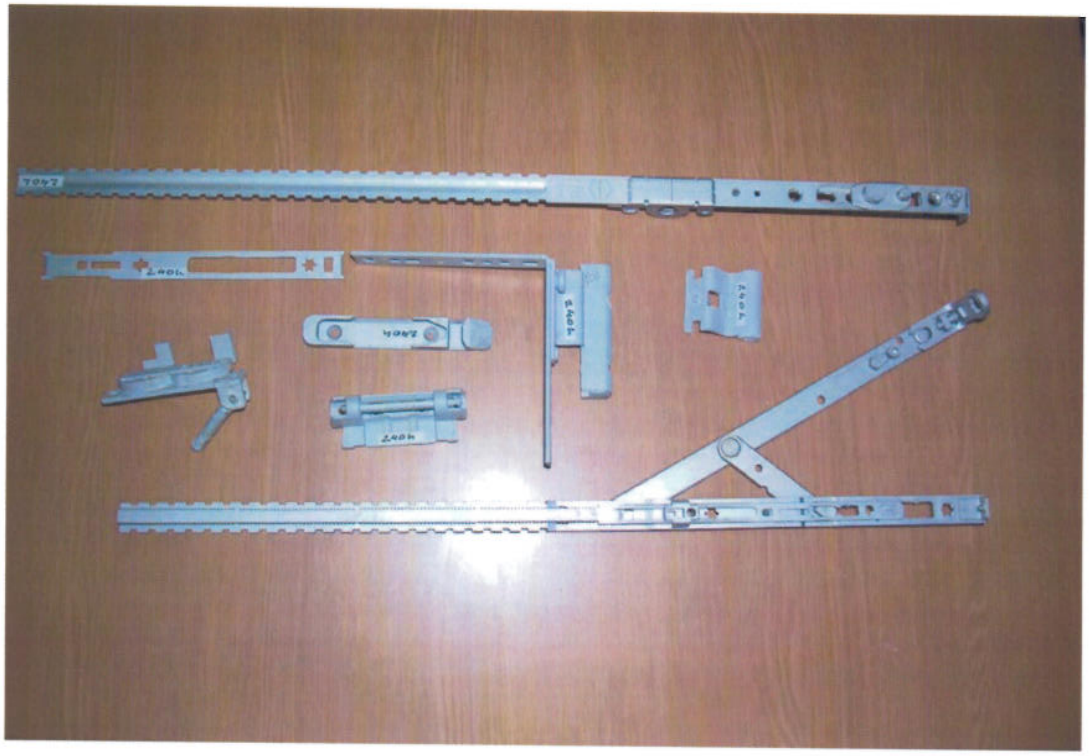
The requirements of the MACO „TRICOAT"surface was fulfilled.

Only on 1 out of 10 Beschlagsteilen (sample Trend gear fix, size.0) corrosion could be noticed after 1000 h of salt spray test (see Pic. 10, page 8 of this report)

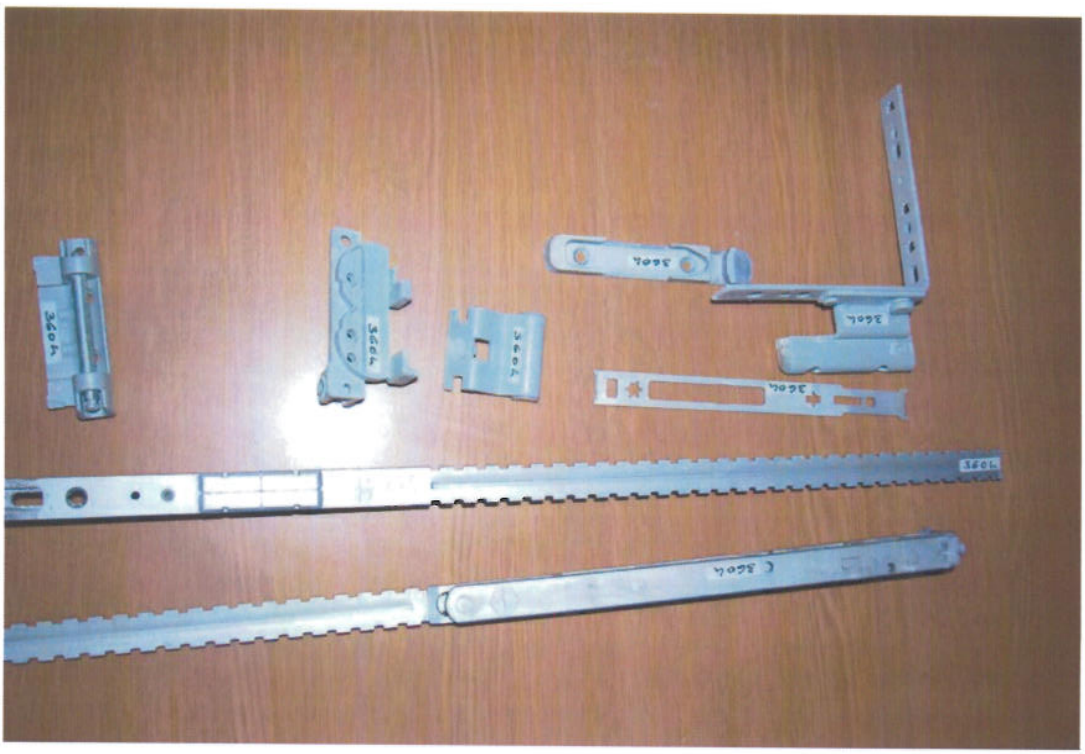
The corrosion (ca. 1%) was below the requirements for the MACO "TRICOAT" surface.

Fotodocumentation

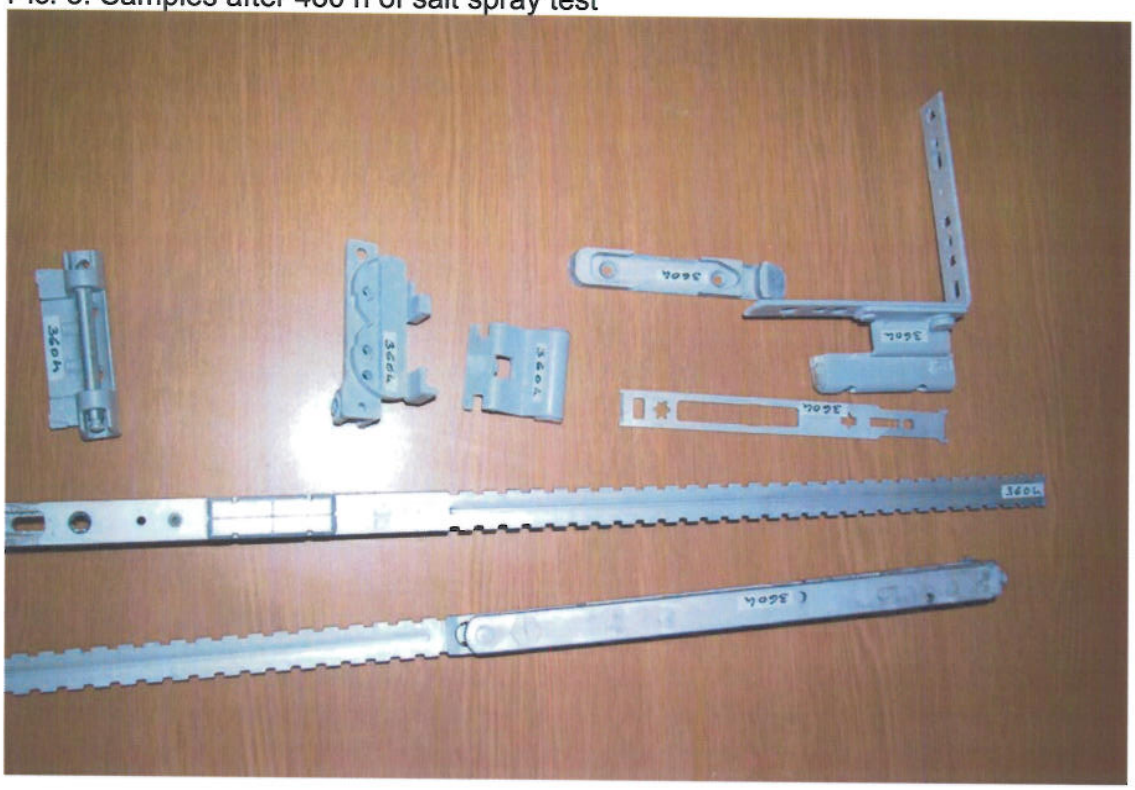
Pic. 1: Samples after 240 h of salt spray test



Pic. 2: Samples after 360 h of salt spray test



Pic. 3: Samples after 480 h of salt spray test



Pic. 4: Samples after 576 h of salt spray test

Bild 5: Prüflinge nach 696 Std. Salzsprühnebeltest

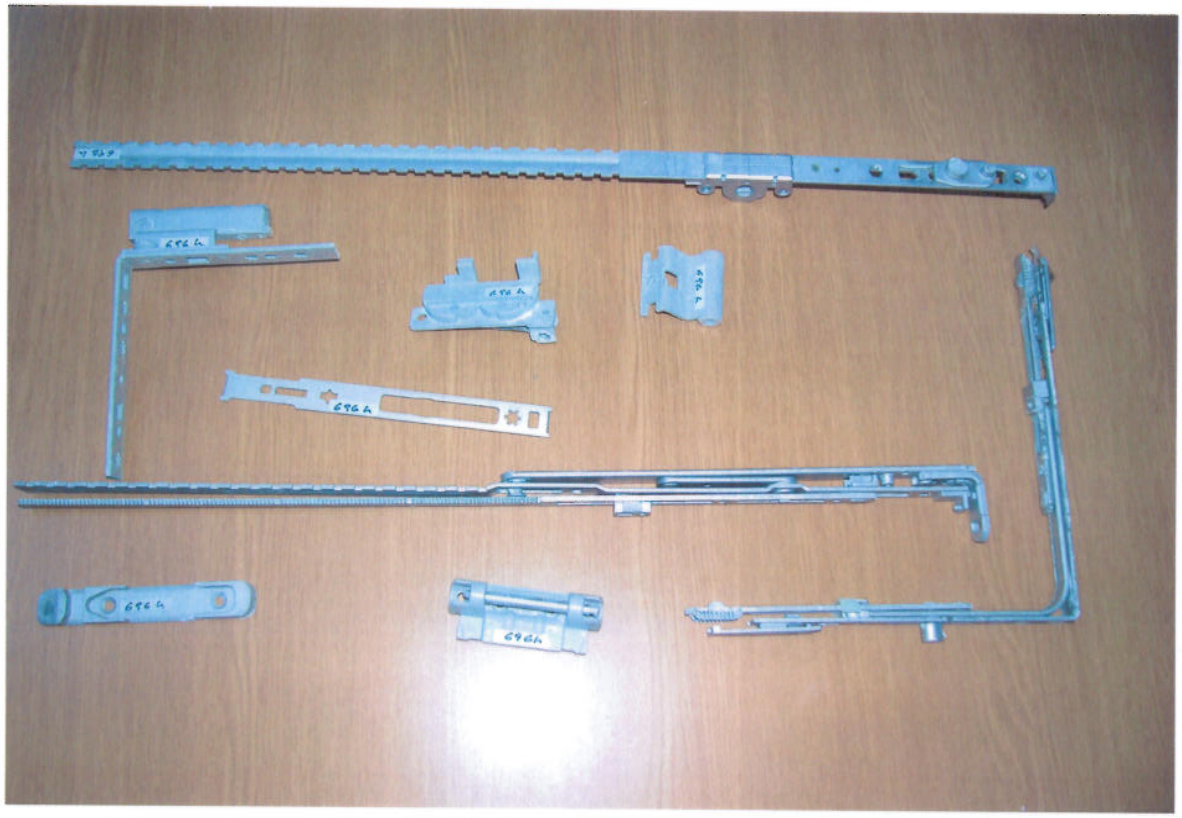


Bild 6: Prüflinge nach 816 Std. Salzsprühnebeltest

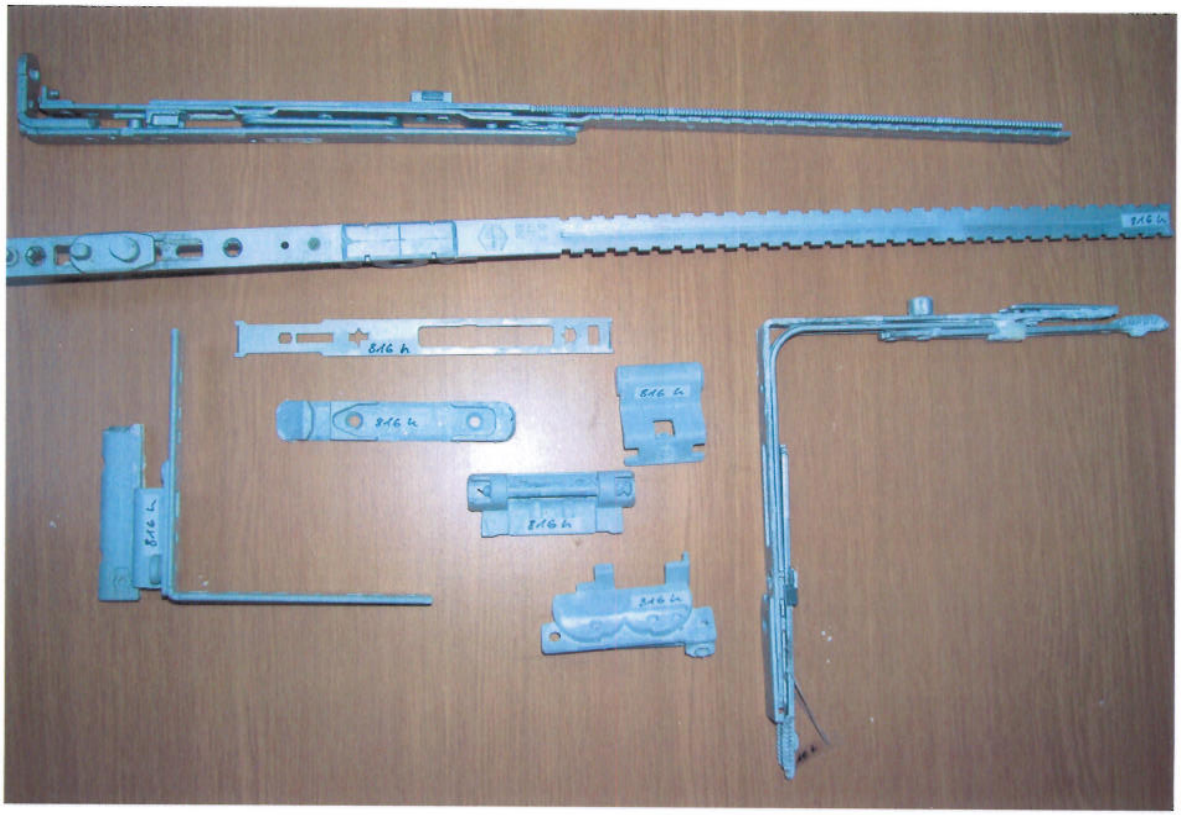


Bild 7: Prüflinge nach 912 Std. Salzsprühnebeltest

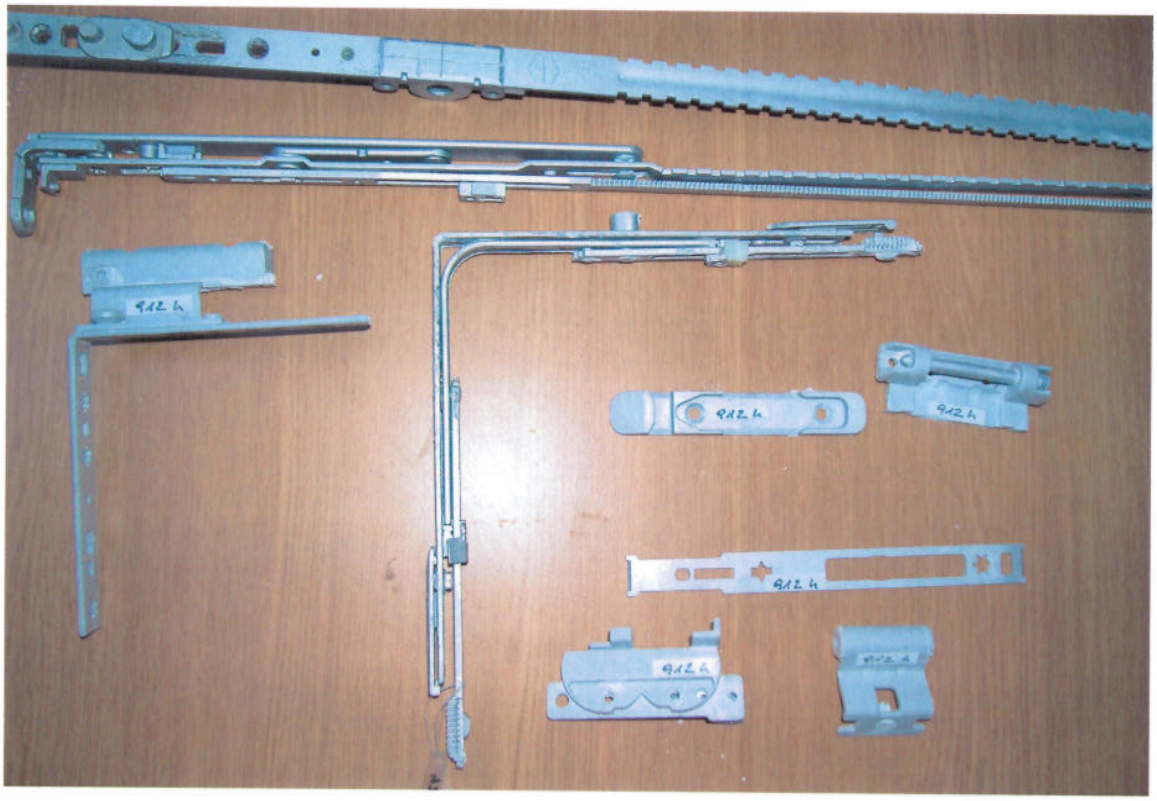


Bild 8: Prüflinge nach 1000 Std. Salzsprühnebeltest

Bild 9: Prüfling Trend Getriebe fix, Gr.0 nach 1000 Std. Salzsprühnebeltest

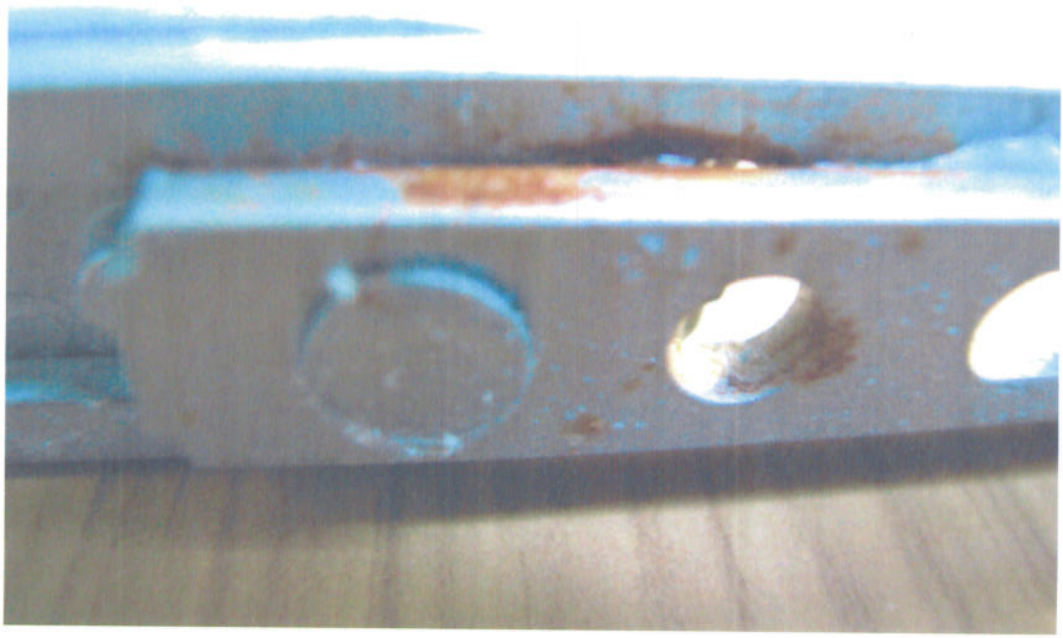



Bild 10: Korrosionserscheinungen an Prüfling Trend Getriebe fix, Gr.0 nach 1000 Std. Salzsprühnebeltest