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Stork Technimet, Inc.

 $\label{eq:Failure Analysis} \bullet \text{Materials Testing} \bullet \text{Product Evaluation}$

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Report No. 0306-07177

SALT SPRAY TESTING OF SHEAVES AND BUSHINGS

Steven J. Suess, P.E.

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It is our policy to retain components and sample remnants for a minimum of 30 days from the report date, after which time they may be discarded. The data herein represents only the item(s) tested. This report shall not be reproduced, except in full, without prior permission of Stork Technimet, Inc.



I. DESCRIPTION AND PURPOSE

Twenty-eight (28) sheaves were received along with two (2) bushings. It was requested that these components be subjected to 72 hours of salt spray testing per ASTM B 117. These parts were previously balance tested under Stork Technimet file No. 0303-06603, with the report dated June 23, 2003.

II. SALT SPRAY TESTING

All of the parts were subjected to a controlled salt fog atmosphere per ASTM B117 as requested. The components were removed from the environmental test chamber after 72 hours of exposure. The visual inspection results are presented in Table 1 with the components shown in Figures 1-8.

III. CONCLUSIONS

The results of this study indicate that these parts exhibited significant variations in salt spray corrosion resistance. The parts showed red rust over 5-100% of their surfaces after 72 hours of salt spray exposure.

The components are being retained at Stork Technimet for further testing, per your request. If you have any questions regarding the contents of this report, please contact me.

Respectfully submitted,

Electronic Document. Original Contains Signature.

Steven J. Suess, P.E. Senior Metallurgist

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Table 1

Visual Inspection Results (ASTM B117, 72 Hours)

Supplier	Sample No.	Identification	Approx. % Red Rust	Figure No.
Masterdrive	1	BK90	10	1
	2	IVM 50	15	
	3	IVM 50	10	
	4	2VP60	30	
	5	2VP60	30	
	6	BK80	30	2
	7	BK80	5	
	8	BK100	10	
	9	BK100	30	
Browning	10	IVM50	90	3
	11	BK80	10	
	12	2VP60	20	
	13	BK100	15	
	30	BK100	20	
Maska	14	8450	10	4
	15	MB98	90	
	16	MB78	50	
	17	8550	10	
Dodge	19	2VP60	10	5
	20	BK100	40	
	21	BK80	10	
TB Woods	22		100	6
	23		5	
	24	BK80H	50	
	25	BK100QT	80	
Maurey	26	KR11H8181	100	7
	27	D8550LA	100	
	29	BC83	100	
Not Specified	-	Bushing	100	8
	-	Bushing	100	



Fig. 1 - The Masterdrive sheaves identified as Samples 1-5 are shown after 72 hours of salt spray testing.



Fig. 2 - The Masterdrive sheaves identified as Samples 6-9 are shown after 72 hours of salt spray testing.



Fig. 3 - The Browning sheaves identified as Samples 10-13 and 30 are shown after 72 hours of salt spray testing.



Fig. 4 - The Maska sheaves identified as Samples 14-17 are shown after 72 hours of salt spray testing.



Fig. 5 - The Dodge sheaves identified as Samples 19-21 are shown after 72 hours of salt spray testing.



Fig. 6 - The TB Woods sheaves identified as Samples 22-25 are shown after 72 hours of salt spray testing.



Fig. 7 - The Maurey sheaves identified as Samples 26, 27 and 29 are shown after 72 hours of salt spray testing.



Fig. 8 - The two bushings are shown after 72 hours of salt spray testing.