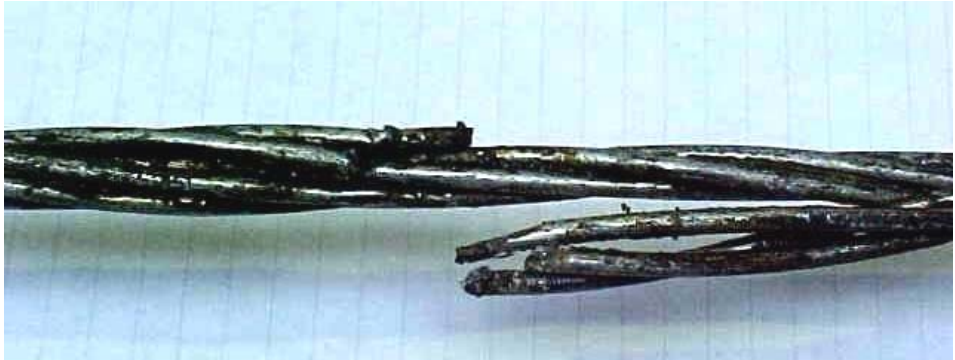


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OVERHEAD LINE CAMPAIGN CHANGES – DATA SHEET	
64	RENEW AWAC CATENARY PRONE TO FAILURE DUE TO CORROSION OF THE STAINLESS STEEL INNER CORES.
COMPONENT	AWAC catenary installed in saline polluted areas with inadequate in-span jumpering.
PROBLEM	<p>AWAC catenary installed in polluted areas with inadequate in-span jumpering can suffer from corrosion of the steel cores. This leads to the catenary parting and dewirement.</p> 
ACTION REQUIRED	<ol style="list-style-type: none"> 1. Undertake metallurgical analysis to establish extent of problem. 2. Replace affected catenary with 19/2.1 bronze II (Cu-Mg) copper alloy catenary to Mark 3d OLEMI drawings and redropper. <p>Note this can be delivered together with other campaign changes regarding stainless steel droppers.</p>

Reference Information	
Ellipse standard job number	13064
Ellipse standard job description	Renew AWAC catenary – SS corrosion
Category	Catenary Wire
Priority	No
Types of OLE affected	Mk3a; Mk3b
Original equipment dates	After 2002

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OVERHEAD LINE CAMPAIGN CHANGES – DATA SHEET

64

RENEW AWAC CATENARY PRONE TO FAILURE DUE TO CORROSION OF THE STAINLESS STEEL INNER CORES.

MAKE-UP OF WIRE	PARTICULARS	CATENARY	CONTACT	CONTACT
192.1	SOLID	BRONZE	CuSn 0.4	SOLID
10.50	mm	10.50	10.50	10.50
66.81	mm ²	66.81	107.00	107.00
53.12	mm ²	53.12	88.23	107
38.64	mm ²	38.64	44.60	38.30
75	mm	75	-	-
65	mm	65	-	-
5.845	N/m	5.845	9.351	9.316
15.677	N/m	15.677	-	-
5.982	N/m	5.982	-	-
21.029	N/m	21.029	-	-
5.95	N/m	5.95	5.437	5.437
3.610	N/m	3.610	3.480	3.480
11.000	N/m	11.000	11.000	11.000
11.000	N/m	11.000	11.000	11.000
11.822	N/m	11.822	11.822	11.822
11.486	N/m	11.486	11.486	11.486
933	mm	933	-	-
1157	mm	1157	-	-
880	mm	880	-	-
348	mm	348	-	-
3.27	mm	3.27	-	-
0.965	kg/m	0.965	-	-
1/148/439	-	1/148/439	-	-

10°C VALUES ARE FOR A WIND SPEED OF 30m/s
 -16°C ARE BASED ON WIND SPEED 40% OF 10°C VALUES
 BLOW OFF AND SAG ARE CALCULATED FOR A 75m MAX. SPAN AND TENSIONS ARE WORST
 CASE SELECTED FROM FULL RANGE OF WIND SPEEDS.

WORN CONTACT CONDITION

PERMISSIBLE WEAR (% OF AREA)	33.33	33.33
TENSION AT -16°C (WIND & ICE)	11.857	11.857
BREAKING LOAD	29.733	24.2
FACTOR OF SAFETY	2.55	2.08

GENERAL TOLERANCES:
 * 2 FOR DIMENSIONS OF 50 OR GREATER
 * 3 FOR DIMENSIONS OF 25 OR GREATER
 * 4 FOR DIMENSIONS OF 10 OR GREATER
 * 5 FOR DIMENSIONS OF 5 OR GREATER
 * 6 FOR DIMENSIONS OF 2 OR GREATER
 * 7 FOR DIMENSIONS OF 1 OR GREATER
 * 8 FOR DIMENSIONS OF 0.5 OR GREATER
 * 9 FOR DIMENSIONS OF 0.2 OR GREATER
 * 10 FOR DIMENSIONS OF 0.1 OR GREATER
 * 11 FOR DIMENSIONS OF 0.05 OR GREATER
 * 12 FOR DIMENSIONS OF 0.02 OR GREATER
 * 13 FOR DIMENSIONS OF 0.01 OR GREATER
 * 14 FOR DIMENSIONS OF 0.005 OR GREATER
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