

ITEM	TEST	REF.STANDARD	REQUIREMENTS	Test Frequency	type of inspection	
					1	2
1	Raw material certificate	Doc No. DNV RP B 401 Nace RP 0387		100%	H	R
2	Calibration certificate check	Doc No. DNV RP B 401 Nace RP 0387		100%	H	R
3	Chemical composition	Doc No. DNV RP B 401 Nace RP 0387	Zn=2.5% -5.75% wt Fe<0.09 % wt Si=0.12% wt Cu <0.003 % wt In=0.015% -0.04% wt Cd< 0.002% All others<0.02 % wt	two samples per each heat	H	RA
4	closed circuit potential	Doc No. DNV RP B 401 Nace RP 0387	Minimum closed circuit potential - 1.05 V(Ag/Ag cl /sea water)	two samples per each heat	H	R
5	-Insert material certificate check -Insert chemical analysis	Doc No. DNV RP B 401 Nace RP 0387	CE<0.41 Maximum Carbon content<0.23%	100% per heat	H H	R R
6	Laboratory tests for measuring the electrochemical efficiency	Appendix A DNV RP B 401 Nace RP 0387	Minimum 2500 Ah/Kg	each 15 tones	H	RA
7	Cast galvanic anode identification	Doc No. DNV RP B 401 Nace RP 0387	shall be die-stamped marked for unique piece No,melt No vendor's name, contractor's mark seq.No. anode type	outer face of 100% of installed anodes	H	R
8	Insert dimensions and location	Doc No. DNV RP B 401 Nace RP 0387	- insert location within the anodes shall not deviate from nominal position shall be in $\pm 5\%$ of the nominal anode width and length and $\pm 10\%$ of the nominal anode depth	100% of anodes	H	R

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9	-Insert weight	Doc No. DNV RP B 401 Nace RP 0387	according to drawing &spec.	20% of anodes	H	W
	-surface preparation		Doc No. DNV RP B 401 Nace RP 0387	-shall be bright steel, free from surface rust or visible surface discolouration	100% of anodes	H
10	Dimensions & Straightness of anode	Doc No. DNV RP B 401 Nace RP 0387	<p>— mean length shall be within $\pm 3\%$ nominal length or $\pm 25\text{mm}$ whichever is smaller</p> <p>— mean width & depth shall be $\pm 5\%$ of the nominal mean width and depth</p> <p>— straightness shall not deviate more than 2% of anode nominal length from the longitudinal of anode .</p>	100% of all anodes	H	W
11	Surface irregularity	Doc No. DNV RP B 401 Nace RP 0387	<p>— shrinkage depression shall not exceed 2 per anode and be limited to 10% of nominal depth, 50% of the distance to insert or 10 mm whichever is the least</p> <p>-free from non-metallic inclusion</p> <p>-coldshut&laps shall not exceed a depth of 10mm</p> <p>-surface shall not be grinded before inspection</p> <p>-reduction in cross section of anodic material adjacent inseert shall not exceed 10% of nominal anode cross section</p>	100% of anodes	H	W
12	Anode weight	Doc No. DNV RP B 401 Nace RP 0387	<p>for greater than 50kg, each anode must be within $\pm 3\%$ of the nominal weight& for less than 50kg must be 2%</p> <p>the total anode net weight of same nominal sizes shall be no more than 2% above &not below the nominal contract weight</p>	100% of all anodes	H	W
13	Cracks	Doc No. DNV RP B 401 Nace RP 0387	<p>-cracks shall not be permitted in the end sections of anode unsupported by insert</p> <p>-longitude cracks are not permitted</p> <p>-at the section of anode transverse cracks of unlimited length and depth are permitted if width does not exceed 5mm and if there are no more than 10 cracks per anode</p>	100% of all anodes	H	W

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					1	2
			-full circumferential cracks shall not be permitted. -cracks of 0.5mm width or less shall not be included cracks count			
14	Inspection of Anode sections and internal defect	Doc No. DNV RP B 401 Nace RP 0387	-anodes shall be transverse sectioned by single cuts at 25%, 33% & 55% of nominal length -cut faces visually without magnification shall contain not more than: 2% of the sum of the area or 5% of any one surface as gas holes & porosity -1% of the sum of the area or 2% of any one surface as non metallic inclusion -10%of tubular insert circumference containing voids adjacent to insert as an average of all sections, max. for any section being 20% of circumference - core location shall be within 10% of nominal position with respect to width & depth	one anode for every 100 anodes of each anode type and size	H	H
15	Compliance report	Doc No. DNV RP B 401 Nace RP 0387		100%	H	R
16	release note (include shipment)	Doc No. DNV RP B 401 Nace RP 0387	-anodes shall be bundled.strapped placed on pallets by agreed procedure for minimize damage	100%	H	RA
17	Final documentation	Doc No. DNV RP B 401 Nace RP 0387		100%	H	RA