

4803131

2" 600# WNRF XS FLANGE

P.O. 134776



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MILL TEST CERTIFICATE

EN10204-3.1.B(DIN50049/3.1.B)
Customer: SEYBOLD INTERNATIONAL CORP.
Order No.: 7008592(3)-MRC CANADA

Certificate No.: SE8592C2
Date: 08/27/2014
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PRODUCT				MATERIAL SPECIFICATIONS										DIMENSIONAL SPECIFICATIONS									
FORGED CARBON STEEL FLANGES				ASTM A-350 LF2-13 CL.1/ASME SA-350 LF2-13 CL.1										ASME B16.5-13 CSA Z245.12									
Item No.	CODE NO	DESCRIPTION	QUANTITY	CHEMICAL COMPOSITION (%)																			
				C	Si	Mn	P	S	Cu	Cr	Ni	Mo	V	Nb	N				CE(*3)				
1	17 17C11491	600 WNRF XS 2" LF2	900 PCE	0.300	0.150	0.600	0.035	0.040	0.400	0.300	0.400	0.120	0.080	0.020	-	-	-	-					
2	22 17C11503	600 WNRF XS 3" LF2	600 PCE	0.210	0.200	1.160	0.021	0.007	0.010	0.020	0.010	0.010	0.004	0.002	0.006			0.411					
3	25 17C10273	150 WNRF STD 4" LF2	600 PCE	0.210	0.200	1.160	0.021	0.007	0.010	0.020	0.010	0.010	0.004	0.002	0.006			0.411					
4	34 17C10903	300 WNRF STD 4" LF2	400 PCE	0.210	0.210	1.160	0.023	0.006	0.010	0.020	0.010	0.002	0.004	0.001	0.008			0.410					
				0.190	0.200	1.040	0.012	0.005	0.120	0.070	0.060	0.018	0.001	0.001	0.007			0.393					
Item No.	Heat No.	T.S.(*1) (MPA)	Y.S.(*1) (MPA)	E.L.(*1) (%)	Hardness (HB)	R.A.(*1) (%)	Impact Test Temp: -46°C Minimum: 20.0 Joule			Material Supplier	HEAT TREATMENT(*2)												
							1	2	3		☒ N	REMARKS											
1	4803131	524.0	370.0	33.6	153/150	68.6	95.0	94.0	87.0	ACOMINAS	☒ N	890°CX4HRS											
2	4803131	524.0	370.0	33.6	153/150	68.6	95.0	94.0	87.0	ACOMINAS	☒ N	CONFORMS WITH NACE MRO103-12 AND NACE											
3	4803135	533.0	368.0	34.2	153/151	68.6	114.0	106.0	115.0	ACOMINAS	☒ N	MRO175/ISO15166.2-09 CLAUSE 7.2.1.4 REGION 3											
4	100738	512.0	368.0	36.2	152/150	71.3	152.0	88.0	137.0	WEI CHIH STEEL	☒ N	AND ANNEX A.											
											☒ N	CONFORMS WITH Z245.12 CAT II GR248 SOUR											
											☒ N	SERVICE-09 (FOR USE AS WELDING NECK AND											
											☒ N	BLIND FLANGES ONLY)											
											☒ N	TEST SPECIMEN SIZE: 10X10											
											☒ N	TEST SPECIMEN ORIENTATION: TRANSVERSE											
											☒ N	IMPACT TEST TEMP.: -46°C											
											☒ N	MN TO C RATIO IS GREATER THAN 3.0"											
*1: T.S. = Tensile Strength, Y.S.=Yield Strength, E.L.=Elongation, R.A.=Reduction of Area.																							
*2: N=Normalized, A=Annealed, Q=Quenched, T=Tempered, S.T=Solution Treated, S.R=Stress Relieved, A.C=Air Cooled, F.C=Furnace Cooled, W.C=Water Cooled, O.C=Oil Cooled.																							
*3: C.E. Value = C + (Mn /6) + (Cr + Mo +V) / 5 + (Ni + Cu) / 15																							
We hereby certify that the material has been tested in accordance with the above specification and also with the requirements called for by the above order.												Manager of Quality Assurance Dept											

