

0344510	Project: Oseberg project_OGP			Client: AIBEL AS		
Order no.	Item no.	Client Art. code	LOT No	Heat code	QTY	Description
4500307608	00150	Q-STB0004184L200		RF0357-A157	196,00	BOLT-STUD C/W 2 NUTS M27 200.0MM /ASTM F467/F468 NI625 (UNS N06625)



CERTIFICATE OF TEST

EN 10204 3.1

SO No : SN20221124001

CUSTOMER : SCANDINAVIAN FITTINGS AND FLANGES

P/O No. : 12223

POR No. : N/A

PJT.NAME(No.): N/A

DATE : 2023-02-20

HULL No. : N/A

CERT. No. : QI20230220024-1

0009	STUD B/2HEX N M27X200L	196 ST			
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SR No.	DESCRIPTION	Q'ty	Material	Heat No	Lot No	Heat Treatment(*C*Hr)	
						Quenching	Tempering
0009	1 : STUD BOLT	196EA	ASTM F468-NI625	RF0357	PD202211240009-1		
0009	2 : HEX NUT	392EA	ASTM F467-NI625	RE0231	PD202211240009-2		

SR No.				C X 100	Mn X 100	Si X 100	P X 1000	S X 1000	Ni X 10	Cr X 10	Mo X 10	Al X 100	Ti X 100	Nb X 10	Co X 100	Fe X 10
S T D	0009	1	1	0 - 10	0 - 50	0 - 50	0 - 15	0 - 15	580 MIN	200 - 230	80 - 100	0 - 40	0 - 40	32 - 42	0 - 100	0 - 50
	0009	2	1	0 - 10	0 - 50	0 - 50	0 - 15	0 - 15	580 MIN	200 - 230	80 - 100	0 - 40	0 - 40	32 - 42	0 - 100	0 - 50
A C T	0009	1	1	4.6	17.8	16.5	2.0	2.3	603.8	213.4	92.1	28.7	32.1	35.2	31.3	38.8
	0009	2	1	4.5	21.0	19.0	2.0	0.8	605.4	220.0	93.2	26.9	30.1	35.6	31.2	30.2

SR No.	TENSILE TEST			EL(%)	R/A(%)	HARDNESS		IMPACT TEST CONDITION			
	Y/S	T/S	UNIT								
S T D	0009	1	1	415 MIN	825 MIN	MPa	30 MIN		HRC	35 MAX	
	0009	2	1						HRC	35 MAX	
A C T	0009	1	1	485.44	870.90	MPa	51.30		HRC	16.0	
	0009	2	1						HRC	22.0	
										TENSILE SPECIMEN	
										IMPACT TEST RESULT	
										D 12.50X50.00 MM	

SR No.		PROOF LOAD		FULL SIZE TEST		T.COEF
S T D	0009	2	1	190,485	N	
A C T	0009	2	1	ACCEPTED		
A		B	C	★ SR No.		
				A : Item No., B : Traveler No., C : Specimen No.		

REMARKS

* Melting Method: VIM+ESR

 * Solution annealed
 - Bolt : 1000°Cx0.5HxW.C
 - Nut : 900°Cx4.0HxW.C

* ID No.: RF0357(BOLT), A157(NUT)

* Hardness Spec.: HRB 85-HRC 35

 * PMI TEST(100%) : Satisfactory
 * Liquid Penetrant Examination (10%) : No Recordable Indication.
 * NACE MR0175/ISO 15156 : Satisfactory
 * Dimension & Visual Inspection : GOOD
 * App. Code
 - ASTM F468-13/F467-13
 - TR2000 MDS VN708/VN707
 - DIN976/ISO4032

We hereby certify that the material described herein has been satisfactorily tested as above in accordance with the specification.
 The result of Test & Examination were reported in accordance with EN 10204 3.1

☐ WITNESSED BY :
☐ REVIEWED BY :

 MANAGER OF QUALITY:
 CONTROL DEPT.

Our quality system is certified in accordance with ISO 9001-2015 by LRQA.

Chung Sung Gun