



A02

Cert No. SKIN/19/00087417/1 A03

In Accordance with EN10204 3.2
Product manufactured under a Management System approved to ISO 9001

Customer	A08	CSI: 1973762		British Steel Ref. No.	A08	Works Order/Item No.	A08	
				599709E/ 1		599709/ 1		
				Customers Order No.	00 536			A07
				Specification/Product	DNV-GL GRADE VL A			B01/B02
HIERROS ARTETA S.A. POLIGONO AS GANDARAS, 105A 36400 PORRINO SPAIN	A11	Inspection DNV-GL		BULB FLAT 200 X 10.0 MM	B09-B12			
				As Rolled.				
				Rolling No. K68				

B06/A10

[illegible]

1 TEST PER 50T PER CAST/GAUGE **

We hereby certify that the material has been made by an approved process and has been satisfactorily tested in accordance with DNV-GL Rules and Standards for Classification.



16/07/19 G Seaman

On behalf of British Steel Limited, the manufacturer.
These results are certified by British Steel Limited and comply
with the requirements of the Product Description.

NP

N. Dodds, Test House Manager, Teesside

202

All original Inspection Certificates issued by British Steel Limited will contain either an embossed stamp, or be impregnated with a British Steel Limited watermarked logo, or a combination of both. Any recipient of a copy of a British Steel Limited Inspection Certificate without either the stamp or watermarking should ensure from the supplier that it is a true and accurate reproduction of the original. Company Registration Number 09438207.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 23.12.2021
SERTİFİKA NO/Cert. No : 21-6936
SAYFA NO/Page No : 01 / 02
LR Sert. No/LR Cert. No : IST2117226

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 21-2126 MÜŞTERİ REFERANS NO. Customer Reference No. : 957
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement					
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation l ₀ : 5,65S ₀ (%)	Numune/Specimen (mm)				SICAKLIK Temperature °C	
																					YÖN Orientation	10x10	10x7,5	10x5		
																						ISO-V (Joule)				
LR Rules	LR A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*						
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24						*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																	MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation L ₀ : 5,65S ₀ (%)	YÖN Orientation	#1	#2	#3	ORT. Av.	SUMUNE Specimen (mm)	SIC. Temp. °C		
1	EN 10067:1996 BF 100 x 6	LR A	2150950	2480	12	Notes	,13	,22	,54	,012	,014	,12	,11	,20	,003	,002	,035	,002	,001	77	0,27	374	472	30	*	*	*	*	*	*	*		
2	EN 10067:1996 BF 120 x 10	LR A	2148700	8510	12	Notes	,14	,19	,54	,008	,013	,09	,09	,21	,002	,001	,017	,002	,000	73	0,27	297	451	32	*	*	*	*	*	*	*		
3	EN 10067:1996 BF 120 x 8	LR A	2148640	5080	12	Notes	,14	,20	,55	,006	,009	,07	,09	,23	,004	,001	,016	,002	,001	79	0,27	327	465	31	*	*	*	*	*	*	*		
4	EN 10067:1996 BF 140 x 9	LR A	2148650	3570	12	Notes	,15	,19	,55	,007	,011	,08	,10	,24	,003	,001	,014	,002	,000	75	0,29	311	470	32	*	*	*	*	*	*	*		
5	EN 10067:1996 BF 160 x 9	LR A	2148620	2680	12	Notes	,14	,19	,56	,009	,011	,09	,10	,23	,006	,002	,016	,001	,001	78	0,27	340	476	30	*	*	*	*	*	*	*		
6	EN 10067:1996 BF 200 x 10	LR A	2150350	10640	12	Notes	,12	,19	,95	,016	,006	,13	,12	,30	,030	,008	,024	,001	,001	75	0,34	362	504	28	*	*	*	*	*	*	*		
7	EN 10067:1996 BF 280 x 11	LR A	2152240	2410	12	Notes	,15	,19	,56	,011	,009	,12	,09	,30	,005	,001	,022	,002	,000	79	0,30	330	475	29	*	*	*	*	*	*	*		
8	EN 10067:1996 BF 300 x 12	LR A	2122854	6100	12	Notes	,14	,20	,56	,011	,011	,10	,09	,28	,003	,001	,021	,001	,001	75	0,28	314	465	30	*	*	*	*	*	*	*		
9	EN 10067:1996 BF 60 x 5	LR A	2150790	2560	12	Notes	,14	,22	,55	,008	,005	,10	,11	,27	,006	,002	,035	,003	,001	78	0,28	386	498	29	*	*	*	*	*	*	*		
10	EN 10067:1996 BF 80 x 6	LR A	2151174	2580	12	Notes	,13	,19	,52	,014	,008	,17	,12	,22	,004	,000	,033	,002	,000	74	0,28	331	470	30	*	*	*	*	*	*	*		

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.
KALİTE GÜV. MD. / QC Manager
BURÇİN NAİL BURAT

Lloyd's Register Güvenciler Ltd. Şti.
M. Emin Tuğluoğlu
İstanbul Office
CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU
23/12/2021

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180° YÖN/Orientation (L: Longitudinal / T: Transverse)

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Söndürülmüş Çelik/Killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 23.12.2021
SERTİFİKA NO/Cert. No : 21-6936
SAYFA NO/Page No : 02 / 02
LR Sert. No/LR Cert. No : IST2117226

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO.
Project No. : OZ 21-2126

MÜŞTERİ REFERANS NO.
Customer Reference No. : 957

SPESİFİKASYON/Specification							KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)																	MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement						
STANDART/Standard		KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation L ₀ : 5,65S ₀ (%)	YÖN Orienta- tion	Numune/Specimen (mm)				SICAKLIK Temperature °C						
				10x10	10x7,5	10x5	ISO-V (Joule)																										
LR Rules		LR AH 36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080			*	*	*	620	*	L	*	*	*	0							
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*			*	*	355	490	22	34		29	23									
ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																	MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation L ₀ : 5,65VS ₀ (%)	YÖN Orienta- tion	#1	#2	#3	ORT. Av.	NUMENE Specimen (mm)	SIC. Temp. °C		
1	EN 10067:1996 BF 100 x 6	LR AH 36	2151010	6490	12	Notes	,14	,24	,90	,009	,005	,11	,12	,22	,029	,035	,035	,003	,001	78	0,35	422	547	25	L	31	36	33	33	10x5	0		
2	EN 10067:1996 BF 100 x 6	LR AH 36	2150990	1390	12	Notes	,15	,21	,90	,011	,005	,10	,12	,20	,031	,031	,028	,003	,001	76	0,35	423	536	26	L	52	49	55	52	10x5	0		
3	EN 10067:1996 BF 120 x 8	LR AH 36	2148870	9270	12	Notes	,14	,22	,90	,009	,007	,11	,10	,24	,028	,033	,022	,002	,001	72	0,34	412	534	26	L	77	66	67	70	10x7,5	0		
4	EN 10067:1996 BF 140 x 8	LR AH 36	2148840	5080	12	Notes	,15	,20	,90	,010	,007	,14	,11	,24	,028	,034	,025	,002	,001	78	0,36	402	533	26	L	76	81	75	77	10x7,5	0		
5	EN 10067:1996 BF 160 x 7	LR AH 36	2149860	6600	12	Notes	,15	,21	,92	,015	,006	,17	,11	,26	,026	,033	,024	,003	,001	72	0,38	432	573	24	L	39	27	30	32	10x5	0		
6	EN 10067:1996 BF 160 x 9	LR AH 36	2149880	2680	12	Notes	,14	,21	,95	,017	,008	,13	,12	,30	,032	,034	,027	,002	,001	74	0,36	416	549	25	L	47	46	55	49	10x7,5	0		
7	EN 10067:1996 BF 180 x 10	LR AH 36	2150310	8260	12	Notes	,15	,24	1,00	,014	,009	,11	,12	,30	,034	,034	,031	,003	,001	77	0,38	441	568	25	L	49	53	43	48	10x10	0		
8	EN 10067:1996 BF 180 x 8	LR AH 36	2149910	2840	12	Notes	,13	,22	,90	,017	,007	,15	,11	,30	,027	,034	,022	,003	,001	73	0,35	421	542	26	L	94	78	68	80	10x7,5	0		
9	EN 10067:1996 BF 200 x 10	LR AH 36	2135251	5800	12	Notes	,11	,44	1,27	,014	,006	,16	,11	,35	,034	,060	,024	,004	,001	79	0,40	439	552	25	L	162	173	168	168	10x10	0		
10	EN 10067:1996 BF 280 x 11	LR AH 36	2152120	2410	12	Notes	,15	,22	1,04	,016	,005	,14	,09	,28	,030	,037	,042	,003	,001	79	0,39	426	566	25	L	53	46	50	50	10x10	0		
11	EN 10067:1996 BF 80 x 6	LR AH 36	2151020	5040	12	Notes	,14	,22	,90	,013	,007	,11	,13	,25	,024	,033	,038	,003	,001	75	0,35	424	553	25	L	33	31	37	34	10x5	0		

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																	MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm ²)	ÇEKME MUK. Tensile Strength (N/mm ²)	UZAMA Elongation L ₀ : 5,65S ₀ (%)	YÖN Orienta- tion	#1	#2	#3	ORT. Av.	SİMUNE Specimen	SIC. Temp.	

1	EN 10067:1996 BF 100 x 6	LR AH 36	2151010	6490	12	Notes	,14	,24	,90	,009	,005	,11	,12	,22	,029	,035	,035	,003	,001	78	0,35	422	547	25	L	31	36	33	33	10x5	0
2	EN 10067:1996 BF 100 x 6	LR AH 36	2150990	1390	12	Notes	,15	,21	,90	,011	,005	,10	,12	,20	,031	,031	,028	,003	,001	76	0,35	423	536	26	L	52	49	55	52	10x5	0
3	EN 10067:1996 BF 120 x 8	LR AH 36	2148870	9270	12	Notes	,14	,22	,90	,009	,007	,11	,10	,24	,028	,033	,022	,002	,001	72	0,34	412	534	26	L	77	66	67	70	10x7,5	0
4	EN 10067:1996 BF 140 x 8	LR AH 36	2148840	5080	12	Notes	,15	,20	,90	,010	,007	,14	,11	,24	,028	,034	,025	,002	,001	78	0,36	402	533	26	L	76	81	75	77	10x7,5	0
5	EN 10067:1996 BF 160 x 7	LR AH 36	2149860	6600	12	Notes	,15	,21	,92	,015	,006	,17	,11	,26	,026	,033	,024	,003	,001	72	0,38	432	573	24	L	39	27	30	32	10x5	0
6	EN 10067:1996 BF 160 x 9	LR AH 36	2149880	2680	12	Notes	,14	,21	,95	,017	,008	,13	,12	,30	,032	,034	,027	,002	,001	74	0,36	416	549	25	L	47	46	55	49	10x7,5	0
7	EN 10067:1996 BF 180 x 10	LR AH 36	2150310	8260	12	Notes	,15	,24	1,00	,014	,009	,11	,12	,30	,034	,034	,031	,003	,001	77	0,38	441	568	25	L	49	53	43	48	10x10	0
8	EN 10067:1996 BF 180 x 8	LR AH 36	2149910	2840	12	Notes	,13	,22	,90	,017	,007	,15	,11	,30	,027	,034	,022	,003	,001	73	0,35	421	542	26	L	94	78	68	80	10x7,5	0
9	EN 10067:1996 BF 200 x 10	LR AH 36	2135251	5800	12	Notes	,11	,44	1,27	,014	,006	,16	,11	,35	,034	,060	,024	,004	,001	79	0,40	439	552	25	L	162	173	168	168	10x10	0
10	EN 10067:1996 BF 280 x 11	LR AH 36	2152120	2410	12	Notes	,15	,22	1,04	,016	,005	,14	,09	,28	,030	,037	,042	,003	,001	79	0,39	426	566	25	L	53	46	50	50	10x10	0
11	EN 10067:1996 BF 80 x 6	LR AH 36	2151020	5040	12	Notes	,14	,22	,90	,013	,007	,11	,13	,25	,024	,033	,038	,003	,001	75	0,35	424	553	25	L	33	31	37	34	10x5	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.
KALİTE GÜV. MD. QA&QC Manager
BURÇİN NİL BURAL

Lloyd's Register Gözetim Ltd. Şti.
M. Emin Tuğluoğlu
İstanbul Office
CLASS SOCIETY: LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180° YÖN/Orientation (L: Lorgitudinal / T: Transverse)

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Söndürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

23/12/2021

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 22.12.2021
SERTİFİKA NO/Cert. No : 21-6935
SAYFA NO/Page No : 1 / 2
DNV Ser. No/DNV Cert. : N1428GJ2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 21-2126 MÜŞTERİ REFERANS NO. Customer Reference No. : 957
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement					
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation L ₀ : 5,65S ₀ (%)	Numune/Specimen (mm)				SICAKLIK Temperature °C	
																					YÖN Orientation	10x10	10x7,5	10x5		
																						ISO-V (Joule)				
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	*	0,40	*	520	*	L	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24		*	*	*	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm ²)	ÇEKME MUK. Tensile Strength (N/mm ²)	UZAMA Elongation L ₀ : 5,65S ₀ (%)	YÖN Orientation	#1	#2	#3	ORT. Av.	SUMUSE Specimen (mm)	SIC. Temp. °C
1	EN 10067:1996 BF 100 x 6	VL A	2150950	2480	12	Notes	,13	,22	,54	,012	,014	,12	,11	,20	,003	,002	,035	,002	,001	,77	0,27	374	472	30	*	*	*	*	*	*	*
2	EN 10067:1996 BF 120 x 10	VL A	2148700	8510	12	Notes	,14	,19	,54	,008	,013	,09	,09	,21	,002	,001	,017	,002	,000	,73	0,27	297	451	32	*	*	*	*	*	*	*
3	EN 10067:1996 BF 120 x 8	VL A	2148640	5080	12	Notes	,14	,20	,55	,006	,009	,07	,09	,23	,004	,001	,016	,002	,001	,79	0,27	327	465	31	*	*	*	*	*	*	*
4	EN 10067:1996 BF 140 x 9	VL A	2148650	3570	12	Notes	,15	,19	,55	,007	,011	,08	,10	,24	,003	,001	,014	,002	,000	,75	0,29	311	470	32	*	*	*	*	*	*	*
5	EN 10067:1996 BF 160 x 9	VL A	2148620	2680	12	Notes	,14	,19	,56	,009	,011	,09	,10	,23	,006	,002	,016	,001	,001	,78	0,27	338	456	31	*	*	*	*	*	*	*
6	EN 10067:1996 BF 200 x 10	VL A	2150350	10640	12	Notes	,12	,19	,95	,016	,006	,13	,12	,30	,030	,008	,024	,001	,001	,75	0,34	362	504	28	*	*	*	*	*	*	*
8	EN 10067:1996 BF 280 x 11	VL A	2152240	2410	12	Notes	,15	,19	,56	,011	,009	,12	,09	,30	,005	,001	,022	,002	,000	,79	0,30	330	475	29	*	*	*	*	*	*	*
9	EN 10067:1996 BF 300 x 12	VL A	2122854	6100	12	Notes	,14	,20	,56	,011	,011	,10	,09	,28	,003	,001	,021	,001	,001	,75	0,28	314	465	30	*	*	*	*	*	*	*
10	EN 10067:1996 BF 60 x 5	VL A	2150790	2560	12	Notes	,14	,22	,55	,008	,005	,10	,11	,27	,006	,002	,035	,003	,001	,78	0,28	386	498	29	*	*	*	*	*	*	*
11	EN 10067:1996 BF 80 x 6	VL A	2151174	2580	12	Notes	,13	,19	,52	,014	,008	,17	,12	,22	,004	,000	,033	,002	,000	,74	0,28	331	470	30	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAHİ BURAL

CLASS SOCIETY: DNV
SURVEYOR : ÖZGÜR KOCABİYİK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180° YÖN/Orientation (L: Longitudinal / T: Transverse)

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Söndürülmüş Çelik/Killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.



☒ Witnessed ☐ Reviewed
And found to comply with:
DNV-RU

Date: 12/27/2021
Sign: ÖZCO

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 22.12.2021
SERTİFİKA NO/Cert. No : 21-6935
SAYFA NO/Page No : 2 / 2
DNV Ser. No/DNV Cert. : N1428GJ1

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 21-2126 MÜŞTERİ REFERANS NO. Customer Reference No. : 957
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm ²)	ÇEKME MUK. Tensile Strength (N/mm ²)	UZAMA Elongation L ₀ : 5,65S ₀ (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					YÖN Orientation	10x10	10x7,5	
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080				*	*	620	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	*	,015	,030	*				*	*	355	490	22	L	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)														MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value							
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation L ₀ : 5,65S ₀ (%)	YÖN Orientation	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.
1	EN 10067:1996 BF 100 x 6	VL A36	2151010	6490	12	Notes	,14	,24	,90	,009	,005	,11	,12	,22	,029	,035	,035	,003	,001	78	0,35	422	547	25	L	31	36	33	33	10x5	0
2	EN 10067:1996 BF 100 x 6	VL A36	2150990	1390	12	Notes	,15	,21	,90	,011	,005	,10	,12	,20	,031	,031	,028	,003	,001	76	0,35	404	524	26	L	41	36	36	38	10x5	0
3	EN 10067:1996 BF 120 x 8	VL A36	2148870	9270	12	Notes	,14	,22	,90	,009	,007	,11	,10	,24	,028	,033	,022	,002	,001	72	0,34	406	529	26	L	77	66	62	68	10x7,5	0
4	EN 10067:1996 BF 140 x 8	VL A36	2148840	5080	12	Notes	,15	,20	,90	,010	,007	,14	,11	,24	,028	,034	,025	,002	,001	78	0,36	402	533	26	L	76	81	75	77	10x7,5	0
5	EN 10067:1996 BF 160 x 7	VL A36	2149860	660	12	Notes	,15	,21	,92	,015	,006	,17	,11	,26	,026	,033	,024	,003	,001	72	0,38	432	573	24	L	39	27	30	32	10x5	0
6	EN 10067:1996 BF 160 x 9	VL A36	2149880	2680	12	Notes	,14	,21	,95	,017	,008	,13	,12	,30	,032	,034	,027	,002	,001	74	0,36	423	552	25	L	47	46	55	49	10x7,5	0
7	EN 10067:1996 BF 180 x 10	VL A36	2150310	8260	12	Notes	,15	,24	1,00	,014	,009	,11	,12	,30	,034	,034	,031	,003	,001	77	0,38	441	568	25	L	64	69	79	71	10x10	0
8	EN 10067:1996 BF 180 x 8	VL A36	2149910	2840	12	Notes	,13	,22	,90	,017	,007	,15	,11	,30	,027	,034	,022	,003	,001	73	0,35	421	542	26	L	94	78	68	80	10x7,5	0
9	EN 10067:1996 BF 200 x 10	VL A36	2135251	5800	12	Notes	,11	,44	1,27	,014	,006	,16	,11	,35	,034	,060	,024	,004	,001	79	0,40	439	552	25	L	62	173	168	134	10x10	0
10	EN 10067:1996 BF 280 x 11	VL A36	2152120	2410	12	Notes	,15	,22	1,04	,016	,005	,14	,09	,28	,030	,037	,042	,003	,001	79	0,39	426	566	25	L	53	46	50	50	10x10	0
11	EN 10067:1996 BF 80 x 6	VL A36	2151020	5040	12	Notes	,14	,22	,90	,013	,007	,11	,13	,25	,024	,033	,038	,003	,001	75	0,35	424	553	25	L	33	31	37	34	10x5	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.



KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAİL BURAL

CLASS SOCIETY : DNV
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180° YÖN/Orientation (L: Longitudinal / T: Transverse)

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Söndürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.



KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.03.2021
SERTİFİKA NO/Cert. No : 21-1617
SAYFA NO/Page No : 1 / 3
DNV Ser. No/DNV Cert. No : N14247WC

Müşteri/ Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 20-2167
Project No.

MÜŞTERİ REFERANS NO. : 1180
Customer Reference No.

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Çev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation L ₀ : 5,65s ₀ (%)	Numune/Specimen (mm)				SICAKLIK Temperature °C
																					YÖN Orientation	10x10	10x7,5	10x5	
																						ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	*	*	*	620	*	L	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490		22	34	29	

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2020-07) rules with satisfactory results.

KALİTE GÜÇ, MİD /QA/QC Manager
BURÇİN NİLİ BURAL

CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/*Tensile Test*: EN 6892-1 ÇENTİK TESTİ/*Impact Test*: ISO 148-1 EĞME TESTİ/*Bending Test*: quer D=2s < 180° YÖN/*Orientation* (L: Longitudinal / T: Transverse)

Notlar (Notes):

CELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Söndürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. *This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.*

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.03.2021
SERTİFİKA NO/Cert. No : 21-1617
SAYFA NO/Page No : 2 / 3
DNV Ser. No/DNV Cert. No : N14247WD

Müşteri/Client : HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. : OZ 20-2167 Project No. MÜŞTERİ REFERANS NO. : 1180 Customer Reference No.
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement						
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation l ₀ : 5,65S ₀ (%)	Numune/Specimen (mm)				SICAKLIK Temperature °C		
																					YÖN Orienta- tion	10x10	10x7,5	10x5			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	*	0,40	*	520	*	L	*	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24		*	*	*	*	

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2020-07) rules with satisfactory results.

KALİTE GÜV. MD. DAQC Manager
BURÇİN NİL DURAL

CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/*Tensile Test*: EN 6892-1 ÇENTİK TESTİ/*Impact Test*: ISO 148-1 EĞME TESTİ/*Bending Test*: quer D=2s < 180° YÖN/*Orientation* (L: Longitudinal / T: Transverse)

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Söndürülmüş Çelik/Killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. *This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.*

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.03.2021
SERTİFİKA NO/Cert. No : 21-1617
SAYFA NO/Page No : 3 / 3
DNV Ser. No/DNV Cert. No : N14247WD

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. : OZ 20-2167 <i>Project No.</i> MÜŞTERİ REFERANS NO. : 1180 <i>Customer Reference No.</i>
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation L ₀ : 5,65V ₀ (%)	Numune/Specimen (mm)				SICAKLIK Temperature °C
																					YÖN Orientation	10x10	10x7,5	10x5	
																						ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	L	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24		*	*	*	

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2020-07) rules with satisfactory results.

KALİTE GÜV. MD. QA&CC Manager
BURÇİN NAL BURAL

CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/*Tensile Test*: EN 6892-1 ÇENTİK TESTİ/*Impact Test*: ISO 148-1 EĞME TESTİ/*Bending Test*: quer D=2s < 180° YÖN/*Orientation* (L: Longitudinal / T: Transverse)

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Söndürülmüş Çelik/Killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. *This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.*

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 18.08.2020
SERTİFİKA NO/Cert. No : 20-3301
SAYFA NO/Page No : 1 / 3
DNVGL No : N141JWSW

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 20-2097 LOT-1 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	*	*	*	620	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	22	34	29	23	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.
																									ISO-V (Joule)					(mm)
1	EN 10067:1996 BF 100 x 6	VL A36	2017220	2340	12	Notes	,14	,25	,94	,011	,006	,13	,08	,31	,029	,031	,026	,001	,001	75	0,37	424	569	24	35	33	34	34	10x5	0
2	EN 10067:1996 BF 120 x 6	VL A36	2016690	4570	12	Notes	,13	,21	,90	,009	,005	,13	,10	,31	,026	,033	,025	,002	,001	78	0,35	428	550	25	32	35	32	33	10x5	0
3	EN 10067:1996 BF 120 x 7	VL A36	2017470	10700	12	Notes	,15	,19	,98	,012	,006	,15	,10	,32	,031	,034	,025	,002	,001	74	0,38	427	554	25	32	37	32	34	10x5	0
4	EN 10067:1996 BF 140 x 7	VL A36	2016660	7955	12	Notes	,15	,19	,90	,011	,006	,12	,09	,28	,028	,033	,019	,000	,001	78	0,36	431	554	25	31	32	34	32	10x5	0
5	EN 10067:1996 BF 140 x 7	VL A36	2016650	8425	12	Notes	,15	,18	,90	,011	,005	,13	,10	,29	,029	,033	,019	,000	,000	74	0,36	428	557	25	29	34	35	33	10x5	0
6	EN 10067:1996 BF 160 x 8	VL A36	2016660	4580	12	Notes	,15	,20	,91	,009	,005	,14	,09	,28	,031	,035	,019	,001	,001	78	0,36	427	550	25	52	64	52	56	10x7,5	0
7	EN 10067:1996 BF 160 x 8	VL A36	2016670	1220	12	Notes	,14	,20	,90	,010	,005	,15	,10	,29	,031	,034	,020	,000	,001	77	0,36	416	542	25	69	82	70	74	10x7,5	0
8	EN 10067:1996 BF 180 x 10	VL A36	2016750	6980	12	Notes	,15	,21	,99	,009	,006	,12	,09	,26	,027	,032	,027	,002	,001	76	0,38	415	544	25	53	97	62	71	10x10	0
9	EN 10067:1996 BF 180 x 8	VL A36	2012240	2490	12	Notes	,14	,18	,90	,009	,005	,07	,09	,25	,026	,032	,021	,000	,001	79	0,34	408	530	25	51	43	47	47	10x7,5	0
10	EN 10067:1996 BF 180 x 9	VL A36	2017650	16540	12	Notes	,15	,19	,99	,005	,004	,10	,08	,27	,024	,031	,028	,003	,001	74	0,37	410	539	26	63	64	56	61	10x7,5	0
11	EN 10067:1996 BF 220 x 10	VL A36	2017960	13660	12	Notes	,15	,23	,98	,011	,004	,14	,10	,35	,030	,035	,023	,002	,001	72	0,38	429	559	24	68	73	51	64	10x10	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2019-07) rules with satisfactory results.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAİL BURAL

☒ Witnessed ☐ Reviewed
And found to comply with
Date: 2020.08.18
Sign:
DNV-GL
CLASS SOCIETY : DNVGL SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar / (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 26.08.2020
SERTİFİKA NO/Cert. No : 20-3464
SAYFA NO/Page No : 1 / 3

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 20-2097 LOT-1 MÜŞTERİ REFERANS NO. Customer Reference No. : IST2017213
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)														MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	AH 36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	*	*	*	620	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	22	34	29	23	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen (mm)	SIC. Temp. °C
1	EN 10067:1996 BF 100 x 6	AH 36	2017220	2340	12	Notes	,14	,25	,94	,011	,006	,13	,08	,31	,029	,031	,026	,001	,001	75	0,37	424	569	24	35	33	34	34	10x5	0
2	EN 10067:1996 BF 120 x 6	AH 36	2016690	4570	12	Notes	,13	,21	,90	,009	,005	,13	,10	,31	,026	,033	,025	,002	,001	78	0,35	428	550	25	32	35	32	33	10x5	0
3	EN 10067:1996 BF 120 x 7	AH 36	2017470	10700	12	Notes	,15	,19	,98	,012	,006	,15	,10	,32	,031	,034	,025	,002	,001	74	0,38	427	554	25	32	37	32	34	10x5	0
4	EN 10067:1996 BF 140 x 7	AH 36	2016660	7955	12	Notes	,15	,19	,90	,011	,006	,12	,09	,28	,028	,033	,019	,000	,001	78	0,36	431	554	25	31	32	34	32	10x5	0
5	EN 10067:1996 BF 140 x 7	AH 36	2016650	8425	12	Notes	,15	,18	,90	,011	,005	,13	,10	,29	,029	,033	,019	,000	,000	74	0,36	428	557	25	29	34	35	33	10x5	0
6	EN 10067:1996 BF 160 x 8	AH 36	2016660	4580	12	Notes	,15	,20	,91	,009	,005	,14	,09	,28	,031	,035	,019	,001	,001	78	0,36	427	550	25	52	64	52	56	10x7,5	0
7	EN 10067:1996 BF 160 x 8	AH 36	2016670	1220	12	Notes	,14	,20	,90	,010	,005	,15	,10	,29	,031	,034	,020	,000	,001	77	0,36	416	542	25	69	82	70	74	10x7,5	0
8	EN 10067:1996 BF 180 x 10	AH 36	2016750	6980	12	Notes	,15	,21	,99	,009	,006	,12	,09	,26	,027	,032	,027	,002	,001	76	0,38	415	544	25	53	97	62	71	10x10	0
9	EN 10067:1996 BF 180 x 8	AH 36	2012240	2490	12	Notes	,14	,18	,90	,009	,005	,07	,09	,25	,026	,032	,021	,000	,001	79	0,34	408	530	25	51	43	47	47	10x7,5	0
10	EN 10067:1996 BF 180 x 9	AH 36	2017650	16540	12	Notes	,15	,19	,99	,005	,004	,10	,08	,27	,024	,031	,028	,003	,001	74	0,37	410	539	26	63	64	56	61	10x7,5	0
11	EN 10067:1996 BF 220 x 10	AH 36	2017960	13660	12	Notes	,15	,23	,98	,011	,004	,14	,10	,35	,030	,035	,023	,002	,001	72	0,38	429	559	24	68	73	51	64	10x10	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NİL BURAL

Lloyd's Register Gözetim Ltd. Şti.
M.Emir Tuğluoğlu
İstanbul Office

CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

26/08/2020

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 31.01.2020
SERTİFİKA NO/Cert. No : 20-0398
SAYFA NO/Page No : 01 / 02
DNVGL No : N141JWSF

Müşteri/Customer: HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 19-2265
Project No.

MÜŞTERİ REFERANS NO. :
Customer Reference No.

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	*	*	*	620	*	*	*	*	
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	22	34	29	23	0

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL


☒ Witnessed ☐ Reviewed
 And found to comply with
 Date: 31.01.2020
 Sign: 
 DNV-GL

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test:quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

CLASS SOCIETY: DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 31.01.2020
SERTİFİKA NO/Cert. No : 20-0398
SAYFA NO/Page No : 02 / 02
DNVGL No : N141JWSG

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA),	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2265 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*			*	0,40	*	520	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*			*	*	235	400	24	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																		MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.			
																										ISO-V (Joule)				(mm)	°C		
1	EN 10067:1996 BF 60 x 5	VL A	131924	3030	12	Notes	,17	,16	,59	,012	,019	,09	,09	,25	,000	,001	,019	,002	,000	84	0,31	345	472	30	*	*	*	*	*	*	*		
2	EN 10067:1996 BF 160 x 8	VL A	194463	2140	12	Notes	,13	,19	,55	,011	,009	,09	,08	,24	,002	,002	,020	,001	,000	76	0,27	300	455	31	*	*	*	*	*	*	*		
3	EN 10067:1996 BF 160 x 8	VL A	194457	305	12	Notes	,13	,18	,53	,013	,020	,11	,10	,29	,003	,001	,020	,001	,000	79	0,27	321	454	31	*	*	*	*	*	*	*		
4	EN 10067:1996 BF 160 x 8	VL A	194871	305	12	Notes	,14	,19	,54	,007	,009	,08	,08	,27	,003	,002	,020	,003	,000	79	0,27	302	454	30	*	*	*	*	*	*	*		
5	EN 10067:1996 BF 180 x 10	VL A	195187	2330	12	Notes	,13	,19	,56	,014	,010	,13	,12	,26	,003	,003	,025	,003	,000	77	0,28	337	469	31	*	*	*	*	*	*	*		
																			</														

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

BOZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL


☒ Witnessed ☐ Reviewed
 And found to comply with
 Date: 31.01.2020
 Sign: 
 DNV-GL

CEKME TESTİ/*Tensile Test*: EN 6892-1 ÇENTİK TESTİ/*Impact Test*: ISO 148-1 EĞME TESTİ/*Bending Test*: quer D=2s < 180°

Notlar (Notes):
ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

CLASS SOCIETY: DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK

Bozköy Köyü 13. Cadde No:4
35800 Aliaga - IZMIR / TURKEY
Tel : 0090 232 625 15 15
Fax : 0090 232 625 20 87

KALİTE BELGESİ

MİLLİ TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 04.02.2020
SERTİFİKA NO/Cert. No : 20-0436
SAYFA NO/Page No : 1 / 2

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 19-2265
Project No.

MÜŞTERİ REFERANS NO. : IST1917314
Customer Reference No.

[illegible]

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

LÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL

Lloyd's register Gözetim Ltd. Şti.
İstanbul Ofisi

☐ Reviewed

☒ Witnessed

 Lloyd's Register

CLASS SOCIETY: LLOYD'S REGISTER

SURVEYOR : MEHMET EMİN TUĞLUOĞLU

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/ *Impact Test*: ISO 148-1 EĞME TESTİ/ *Bending Test*: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

04/02/2020

Bozköy Köyü 13. Cadde No:4
35800 Aliaga - İZMİR / TURKEY
Tel : 0090 232 625 15 15
Fax : 0090 232 625 20 87

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 04.02.2020
SERTİFİKA NO/Cert. No : 20-0436
SAYFA NO/Page No : 2 / 2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2265 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917314
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
LR Rules	AH 36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	*	*	*	620	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	22	34	29	23	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen	SIC. Temp.	
1	EN 10067:1996 BF 240 x 10	AH 36	2000670	7340	12	Notes	,13	,23	,97	,014	,011	,10	,09	,28	,033	,034	,023	,002	,001	77	0,34	398	528	25	56	49	88	64	10x10	0	

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.



KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAİL BURAL



ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

04/02/2020

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 13.02.2020
SERTİFİKA NO/Cert. No : 20-0563
SAYFA NO/Page No : 03 / 03
DNVGL No : N141JWSG

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2276
		MÜŞTERİ REFERANS NO. Customer Reference No. :

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORJ. At.	NUMUNE Specimen	SIC. Temp.	
12	EN 10067:1996 BF 160 x 7	VL A	194598	690	12	Notes	,13	,20	,53	,008	,011	,10	,13	,34	,003	,002	,029	,004	,000	79	0,28	294	454	30	*	*	*	*	*	*	*
13	EN 10067:1996 BF 160 x 7	VL A	194874	2480	12	Notes	,19	,23	,80	,011	,014	,10	,09	,31	,003	,002	,025	,003	,000	75	0,37	352	512	29	*	*	*	*	*	*	*
14	EN 10067:1996 BF 160 x 8	VL A	194875	10990	12	Notes	,18	,26	,87	,012	,017	,11	,09	,31	,004	,002	,024	,004	,001	77	0,38	357	511	26	*	*	*	*	*	*	*
15	EN 10067:1996 BF 180 x 10	VL A	194630	425	12	Notes	,14	,18	,56	,007	,011	,06	,08	,25	,004	,002	,025	,004	,000	76	0,28	310	467	30	*	*	*	*	*	*	*
16	EN 10067:1996 BF 180 x 10	VL A	195187	4655	12	Notes	,13	,19	,56	,014	,010	,13	,12	,26	,003	,003	,025	,003	,000	77	0,28	337	469	31	*	*	*	*	*	*	*
17	EN 10067:1996 BF 180 x 9	VL A	2000100	32500	12	Notes	,15	,22	,84	,012	,013	,11	,10	,28	,006	,003	,024	,004	,000	74	0,34	363	504	29	*	*	*	*	*	*	*
18	EN 10067:1996 BF 220 x 12	VL A	193131	940	12	Notes	,14	,19	,52	,012	,008	,14	,09	,29	,004	,002	,019	,004	,001	76	0,28	312	472	30	*	*	*	*	*	*	*
19	EN 10067:1996 BF 220 x 12	VL A	193891	630	12	Notes	,10	,23	,88	,014	,007	,11	,09	,22	,024	,008	,020	,004	,001	76	0,30	340	478	30	*	*	*	*	*	*	*
20	EN 10067:1996 BF 220 x 12	VL A	2000780	2520	12	Notes	,12	,21	,55	,015	,011	,11	,09	,33	,002	,003	,019	,001	,000	78	0,27	333	461	30	*	*	*	*	*	*	*
21	EN 10067:1996 BF 240 x 12	VL A	195001	2460	12	Notes	,12	,22	,53	,012	,016	,10	,09	,27	,004	,002	,019	,001	,000	77	0,26	338	463	30	*	*	*	*	*	*	*
22	EN 10067:1996 BF 80 x 6	VL A	195116	2280	12	Notes	,13	,20	,54	,012	,013	,07	,09	,25	,004	,002	,022	,005	,000	72	0,27	347	473	30	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2019-07) rules with satisfactory results.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL

☒ Witnessed ☐ Reviewed
And found to comply with
DNVGL Rule
Date: 24.02.2020
Sign:
CLASS SOCIETY DNVGL
SURVEYOR : ÖZGÜR KOCABAŞIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quier D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 28.02.2020
SERTİFİKA NO/Cert. No : 20-0829
SAYFA NO/Page No : 03 / 03

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2276	MÜŞTERİ REFERANS NO. Customer Reference No. : IST2017037
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24	*	*	*	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temper.	
																															ISO-V (Joule)
12	EN 10067:1996 BF 160 x 7	GRADE A	194598	690	12	Notes	,13	,20	,53	,008	,011	,10	,13	,34	,003	,002	,029	,004	,000	79	0,28	294	454	30	*	*	*	*	*	*	*
13	EN 10067:1996 BF 160 x 7	GRADE A	194874	2480	12	Notes	,19	,23	,80	,011	,014	,10	,09	,31	,003	,002	,025	,003	,000	75	0,37	352	512	29	*	*	*	*	*	*	*
14	EN 10067:1996 BF 160 x 8	GRADE A	194875	10990	12	Notes	,18	,26	,87	,012	,017	,11	,09	,31	,004	,002	,024	,004	,001	77	0,38	357	511	26	*	*	*	*	*	*	*
15	EN 10067:1996 BF 180 x 10	GRADE A	194630	425	12	Notes	,14	,18	,56	,007	,011	,06	,08	,25	,004	,002	,025	,004	,000	76	0,28	310	467	30	*	*	*	*	*	*	*
16	EN 10067:1996 BF 180 x 10	GRADE A	195187	4655	12	Notes	,13	,19	,56	,014	,010	,13	,12	,26	,003	,003	,025	,003	,000	77	0,28	337	469	31	*	*	*	*	*	*	*
17	EN 10067:1996 BF 180 x 9	GRADE A	2000100	32500	12	Notes	,15	,22	,84	,012	,013	,11	,10	,28	,006	,003	,024	,004	,000	74	0,34	363	504	29	*	*	*	*	*	*	*
18	EN 10067:1996 BF 220 x 12	GRADE A	193131	940	12	Notes	,14	,19	,52	,012	,008	,14	,09	,29	,004	,002	,019	,004	,001	76	0,28	372	477	29	*	*	*	*	*	*	*
19	EN 10067:1996 BF 220 x 12	GRADE A	193891	630	12	Notes	,10	,23	,88	,014	,007	,11	,09	,22	,024	,008	,020	,004	,001	76	0,30	339	485	30	*	*	*	*	*	*	*
20	EN 10067:1996 BF 220 x 12	GRADE A	2000780	2520	12	Notes	,12	,21	,55	,015	,011	,11	,09	,33	,002	,003	,019	,001	,000	78	0,27	333	461	30	*	*	*	*	*	*	*
21	EN 10067:1996 BF 240 x 12	GRADE A	195001	2460	12	Notes	,12	,22	,53	,012	,016	,10	,09	,27	,004	,002	,019	,001	,000	77	0,26	338	463	30	*	*	*	*	*	*	*
22	EN 10067:1996 BF 80 x 6	GRADE A	195116	2280	12	Notes	,13	,20	,54	,012	,013	,07	,09	,25	,004	,002	,022	,005	,000	72	0,27	347	473	30	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.



KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL



ÇEKME TESTİ/ Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

28/02/2020

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 13.02.2020
SERTİFİKA NO/Cert. No : 20-0563
SAYFA NO/Page No : 02 / 03
DNVGL No : N141JWSG

Müşteri/ Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2276
		MÜŞTERİ REFERANS NO. Customer Reference No. :

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.
																				(ppm)					ISO-V (Joule)				(mm)	°C
1	EN 10067:1996 BF 100 x 6	VL A	194963	5620	12	Notes	,15	,18	,52	,012	,005	,16	,14	,32	,004	,004	,025	,004	,001	76	0,31	365	495	29	*	*	*	*	*	*
2	EN 10067:1996 BF 100 x 7	VL A	194792	7980	12	Notes	,14	,21	,82	,015	,009	,23	,26	,23	,004	,003	,047	,004	,000	79	0,36	375	512	29	*	*	*	*	*	*
3	EN 10067:1996 BF 100 x 8	VL A	195113	23680	12	Notes	,12	,20	,53	,011	,010	,08	,08	,28	,004	,003	,017	,003	,000	76	0,25	316	459	31	*	*	*	*	*	*
4	EN 10067:1996 BF 120 x 6	VL A	2000120	9140	12	Notes	,11	,18	,51	,012	,011	,06	,09	,25	,004	,002	,019	,004	,000	75	0,23	338	464	31	*	*	*	*	*	*
5	EN 10067:1996 BF 120 x 7	VL A	2000111	7730	12	Notes	,13	,21	,52	,011	,009	,08	,12	,23	,004	,003	,024	,004	,001	78	0,26	327	461	31	*	*	*	*	*	*
6	EN 10067:1996 BF 120 x 7	VL A	2000140	15170	12	Notes	,11	,21	,53	,010	,007	,08	,12	,22	,003	,003	,024	,004	,001	76	0,24	318	455	31	*	*	*	*	*	*
7	EN 10067:1996 BF 120 x 8	VL A	195133	31570	12	Notes	,13	,19	,55	,011	,018	,08	,09	,24	,004	,003	,020	,004	,001	79	0,26	329	456	30	*	*	*	*	*	*
8	EN 10067:1996 BF 140 x 10	VL A	195126	2660	12	Notes	,11	,21	,72	,014	,015	,09	,10	,32	,014	,016	,025	,005	,001	80	0,29	354	490	30	*	*	*	*	*	*
9	EN 10067:1996 BF 140 x 8	VL A	194660	22000	12	Notes	,14	,21	,81	,008	,008	,10	,12	,30	,004	,003	,031	,005	,000	74	0,33	342	495	29	*	*	*	*	*	*
10	EN 10067:1996 BF 140 x 9	VL A	194597	1000	12	Notes	,14	,19	,54	,007	,013	,11	,14	,25	,003	,003	,029	,003	,000	78	0,28	311	467	30	*	*	*	*	*	*
11	EN 10067:1996 BF 140 x 9	VL A	194752	10420	12	Notes	,12	,21	,53	,012	,010	,08	,09	,28	,005	,004	,021	,005	,001	74	0,25	322	461	30	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2019-07) rules with satisfactory results.



KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAIL BURAL

☒ Witnessed ☐ Reviewed
And found to comply with
DNV GL - 24
Date: 24.02.2020
Sign:
CLASS SOCIETY: DNVGL
SURVEYOR: ÖZGÜR KOCABAŞIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 28.02.2020
SERTİFİKA NO/Cert. No : 20-0829
SAYFA NO/Page No : 02 / 03

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.006 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2276	MÜŞTERİ REFERANS NO. Customer Reference No. : IST2017037
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)																MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement		
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm ²)	ÇEKME MUK. Tensile Strength (N/mm ²)	UZAMA Elongation (%)	Numune/SPECIMEN (mm)			SICAKLIK Temperature °C
																(ppm)					10x10	10x7,5	10x5	
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.	
ISO-V (Joule)																											(mm)		°C		
1	EN 10067:1996 BF 100 x 6	GRADE A	194963	5620	12	Notes	,15	,18	,52	,012	,005	,16	,14	,32	,004	,004	,025	,004	,001	76	0,31	365	495	29	*	*	*	*	*	*	*
2	EN 10067:1996 BF 100 x 7	GRADE A	194792	7980	12	Notes	,14	,21	,82	,015	,009	,23	,26	,23	,004	,003	,047	,004	,000	79	0,36	375	512	29	*	*	*	*	*	*	*
3	EN 10067:1996 BF 100 x 8	GRADE A	195113	23680	12	Notes	,12	,20	,53	,011	,010	,08	,08	,28	,004	,003	,017	,003	,000	76	0,25	316	459	31	*	*	*	*	*	*	*
4	EN 10067:1996 BF 120 x 6	GRADE A	2000120	9140	12	Notes	,11	,18	,51	,012	,011	,06	,09	,25	,004	,002	,019	,004	,000	75	0,23	338	464	31	*	*	*	*	*	*	*
5	EN 10067:1996 BF 120 x 7	GRADE A	2000111	7730	12	Notes	,13	,21	,52	,011	,009	,08	,12	,23	,004	,003	,024	,004	,001	78	0,26	327	461	31	*	*	*	*	*	*	*
6	EN 10067:1996 BF 120 x 7	GRADE A	2000140	15170	12	Notes	,11	,21	,53	,010	,007	,08	,12	,22	,003	,003	,024	,004	,001	76	0,24	318	455	31	*	*	*	*	*	*	*
7	EN 10067:1996 BF 120 x 8	GRADE A	195133	31570	12	Notes	,13	,19	,55	,011	,018	,08	,09	,24	,004	,003	,020	,004	,001	79	0,26	329	456	30	*	*	*	*	*	*	*
8	EN 10067:1996 BF 140 x 10	GRADE A	195126	2660	12	Notes	,11	,21	,72	,014	,015	,09	,10	,32	,014	,016	,025	,005	,001	80	0,29	354	490	30	*	*	*	*	*	*	*
9	EN 10067:1996 BF 140 x 8	GRADE A	194660	22000	12	Notes	,14	,21	,81	,008	,008	,10	,12	,30	,004	,003	,031	,005	,000	74	0,33	342	495	29	*	*	*	*	*	*	*
10	EN 10067:1996 BF 140 x 9	GRADE A	194597	1000	12	Notes	,14	,19	,54	,007	,013	,11	,14	,25	,003	,003	,029	,003	,000	78	0,28	311	467	30	*	*	*	*	*	*	*
11	EN 10067:1996 BF 140 x 9	GRADE A	194752	10420	12	Notes	,12	,21	,53	,012	,010	,08	,09	,28	,005	,004	,021	,005	,001	74	0,25	322	461	30	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Şti.
İstanbul Office
☐ Reviewed
☒ Witnessed
CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : MEHMET EMİN TUĞLUOĞLU

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°
Notlar/Notes:

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

28/02/2020

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 09.11.2019
SERTİFİKA NO/Cert. No : 19-4693
SAYFA NO/Page No : 2 / 2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172-2 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917226
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature
																					10x10	10x7,5	10x5	
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	ISO-V (Joule)			°C
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen	SIC. Temp.
1	EN 10067:1996 BF 100 x 8	GRADE A	192869	1380	12	Notes	,16	,20	,54	,007	,007	,07	,07	,18	,003	,001	,018	,002	,001	73	0,29	326	477	30	*	*	*	*	*	*
2	EN 10067:1996 BF 120 x 7	GRADE A	193616	14270	12	Notes	,13	,20	,54	,013	,017	,10	,11	,32	,003	,002	,021	,003	,000	78	0,27	293	448	31	*	*	*	*	*	*
3	EN 10067:1996 BF 120 x 8	GRADE A	193717	7280	12	Notes	,14	,19	,55	,007	,006	,06	,10	,23	,004	,004	,022	,004	,001	78	0,27	307	463	31	*	*	*	*	*	*
4	EN 10067:1996 BF 140 x 7	GRADE A	193636	4096	12	Notes	,14	,18	,63	,017	,019	,14	,10	,32	,005	,006	,026	,004	,001	73	0,30	323	478	30	*	*	*	*	*	*
5	EN 10067:1996 BF 140 x 7	GRADE A	193637	17554	12	Notes	,13	,22	,51	,013	,012	,14	,11	,29	,008	,002	,026	,004	,001	75	0,27	313	468	30	*	*	*	*	*	*
6	EN 10067:1996 BF 140 x 8	GRADE A	193613	2220	12	Notes	,12	,18	,51	,012	,013	,12	,10	,32	,002	,002	,019	,003	,000	73	0,26	297	448	32	*	*	*	*	*	*
7	EN 10067:1996 BF 220 x 10	GRADE A	193520	37710	12	Notes	,13	,20	,53	,014	,011	,08	,15	,26	,003	,002	,030	,003	,000	72	0,27	310	456	31	*	*	*	*	*	*
8	EN 10067:1996 BF 220 x 11	GRADE A	193820	2650	12	Notes	,14	,21	,54	,006	,006	,05	,07	,16	,004	,002	,017	,002	,000	84	0,26	303	461	31	*	*	*	*	*	*
9	EN 10067:1996 BF 220 x 12	GRADE A	192801	4090	12	Notes	,13	,21	,53	,007	,011	,07	,09	,27	,003	,002	,023	,003	,000	75	0,27	311	466	31	*	*	*	*	*	*
10	EN 10067:1996 BF 240 x 10	GRADE A	193821	3980	12	Notes	,14	,20	,56	,009	,006	,05	,07	,17	,003	,003	,020	,003	,000	87	0,26	309	468	31	*	*	*	*	*	*
11	EN 10067:1996 BF 80 x 7	GRADE A	193782	4880	12	Notes	,12	,20	,51	,007	,010	,05	,07	,17	,003	,002	,019	,003	,001	75	0,24	334	458	31	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÖZKAN
KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office
☐ Reviewed
☒ Witnessed
CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : MEHMET EMİN TUĞLUOĞLU
15/11/2019

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

Bozköy Köyü 13. Cadde No:4
35800 Aliaga - IZMIR / TURKEY
Tel : 0090 232 625 15 15
Fax : 0090 232 625 20 87

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 09.11.2019
SERTİFİKA NO/Cert. No : 19-4693
SAYFA NO/Page No : 1 / 2

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 19-2172-2
Project No.

MÜŞTERİ REFERANS NO. : IST1917226
Customer Reference No.

[illegible]

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÇEKME TESTİ/*Tensile Test*: EN 6892-1 ÇENTİK TESTİ/*Impact Test*: ISO 148-1 EĞME TESTİ/*Bending Test*: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office

☐ Reviewed

☒ Witnessed

 Lloyd's Register

CLASS SOCIETY : LLOYD'S REGISTER

SURVEYOR : MEHMET EMİN TUĞLUOĞLU

15/11/2019

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 09.11.2019
SERTİFİKA NO/Cert. No : 19-4694
SAYFA NO/Page No : 1 / 2
DNVGL No : N141JWS7

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO.
Project No. : OZ 19-2172-2

MÜŞTERİ REFERANS NO.
Customer Reference No. :

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	23

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen	SIC. Temp.
																									ISO-V (Joule)				(mm)	°C
1	EN 10067:1996 BF 120 x 6	VL A36	193716	2810	12	Notes	,15	,23	,90	,008	,005	,08	,09	,25	,030	,033	,029	,005	,001	76	0,35	410	560	25	36	33	34	34	10x5	0
2	EN 10067:1996 BF 120 x 6	VL A36	193623	4740	12	Notes	,14	,21	,92	,014	,005	,11	,14	,30	,025	,031	,046	,003	,001	72	0,36	411	563	24	36	35	41	37	10x5	0
3	EN 10067:1996 BF 120 x 7	VL A36	193716	2180	12	Notes	,16	,22	,90	,009	,007	,08	,09	,23	,027	,032	,030	,003	,001	76	0,36	395	543	25	61	55	56	57	10x5	0
4	EN 10067:1996 BF 140 x 7	VL A36	193603	7370	12	Notes	,14	,19	,96	,015	,010	,09	,07	,27	,020	,032	,024	,004	,001	77	0,36	407	557	25	42	39	42	41	10x5	0
5	EN 10067:1996 BF 140 x 8	VL A36	193634	2480	12	Notes	,14	,20	,90	,018	,008	,13	,10	,34	,017	,033	,028	,005	,001	75	0,36	395	534	26	107	80	79	89	10x7,5	0
6	EN 10067:1996 BF 220 x 12	VL A36	193885	5350	12	Notes	,14	,22	,96	,008	,009	,09	,08	,17	,025	,030	,022	,003	,001	75	0,35	395	541	25	104	97	101	101	10x10	0
7	EN 10067:1996 BF 240 x 10	VL A36	193954	2450	12	Notes	,15	,20	,97	,010	,009	,06	,08	,15	,029	,030	,028	,002	,001	76	0,35	394	538	25	89	76	86	84	10x10	0
8	EN 10067:1996 BF 80 x 7	VL A36	193768	4880	12	Notes	,15	,22	,90	,011	,011	,07	,08	,21	,024	,031	,022	,003	,001	75	0,34	396	536	25	34	35	32	34	10x5	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAİL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABİYİK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 09.11.2019
SERTİFİKA NO/Cert. No : 19-4694
SAYFA NO/Page No : 2 / 2
DNVGL No : N141JWS6

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO.
Project No. : OZ 19-2172-2

MÜŞTERİ REFERANS NO.
Customer Reference No. :

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SİC. Temp.	
1	EN 10067:1996 BF 100 x 8	VL A	192869	1380	12	Notes	,16	,20	,54	,007	,007	,07	,07	,18	,003	,001	,018	,002	,001	73	0,29	326	477	30	*	*	*	*	*	*	*
2	EN 10067:1996 BF 120 x 7	VL A	193616	14270	12	Notes	,13	,20	,54	,013	,017	,10	,11	,32	,003	,002	,021	,003	,000	78	0,27	293	448	31	*	*	*	*	*	*	*
3	EN 10067:1996 BF 120 x 8	VL A	193717	7280	12	Notes	,14	,19	,55	,007	,006	,06	,10	,23	,004	,004	,022	,004	,001	78	0,27	307	463	31	*	*	*	*	*	*	*
4	EN 10067:1996 BF 140 x 7	VL A	193636	4096	12	Notes	,14	,18	,63	,017	,019	,14	,10	,32	,005	,006	,026	,004	,001	73	0,30	323	478	30	*	*	*	*	*	*	*
5	EN 10067:1996 BF 140 x 7	VL A	193637	17554	12	Notes	,13	,22	,51	,013	,012	,14	,11	,29	,008	,002	,026	,004	,001	75	0,27	313	468	30	*	*	*	*	*	*	*
6	EN 10067:1996 BF 140 x 8	VL A	193613	2220	12	Notes	,12	,18	,51	,012	,013	,12	,10	,32	,002	,002	,019	,003	,000	73	0,26	297	448	32	*	*	*	*	*	*	*
7	EN 10067:1996 BF 220 x 10	VL A	193520	37710	12	Notes	,13	,20	,53	,014	,011	,08	,15	,26	,003	,002	,030	,003	,000	72	0,27	310	456	31	*	*	*	*	*	*	*
8	EN 10067:1996 BF 220 x 11	VL A	193820	2650	12	Notes	,14	,21	,54	,006	,006	,05	,07	,16	,004	,002	,017	,002	,000	84	0,26	303	461	31	*	*	*	*	*	*	*
9	EN 10067:1996 BF 220 x 12	VL A	192801	4090	12	Notes	,13	,21	,53	,007	,011	,07	,09	,27	,003	,002	,023	,003	,000	75	0,27	311	466	31	*	*	*	*	*	*	*
10	EN 10067:1996 BF 240 x 10	VL A	193821	3980	12	Notes	,14	,20	,56	,009	,006	,05	,07	,17	,003	,003	,020	,003	,000	87	0,26	309	468	31	*	*	*	*	*	*	*
11	EN 10067:1996 BF 80 x 7	VL A	193782	4880	12	Notes	,12	,20	,51	,007	,010	,05	,07	,17	,003	,002	,019	,003	,001	75	0,24	334	458	31	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.



KALİTE GUV. MD. QA&QC Manager
BURÇİN NİL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/ Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 09.11.2019
SERTİFİKA NO/Cert. No : 19-4693
SAYFA NO/Page No : 2 / 2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172-2 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917226
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
			10x10	10x7,5	10x5																			
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	ISO-V (Joule)			°C
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen	SIC. Temp.
1	EN 10067:1996 BF 100 x 8	GRADE A	192869	1380	12	Notes	,16	,20	,54	,007	,007	,07	,07	,18	,003	,001	,018	,002	,001	73	0,29	326	477	30	*	*	*	*	*	*
2	EN 10067:1996 BF 120 x 7	GRADE A	193616	14270	12	Notes	,13	,20	,54	,013	,017	,10	,11	,32	,003	,002	,021	,003	,000	78	0,27	293	448	31	*	*	*	*	*	*
3	EN 10067:1996 BF 120 x 8	GRADE A	193717	7280	12	Notes	,14	,19	,55	,007	,006	,06	,10	,23	,004	,004	,022	,004	,001	78	0,27	307	463	31	*	*	*	*	*	*
4	EN 10067:1996 BF 140 x 7	GRADE A	193636	4096	12	Notes	,14	,18	,63	,017	,019	,14	,10	,32	,005	,006	,026	,004	,001	73	0,30	323	478	30	*	*	*	*	*	*
5	EN 10067:1996 BF 140 x 7	GRADE A	193637	17554	12	Notes	,13	,22	,51	,013	,012	,14	,11	,29	,008	,002	,026	,004	,001	75	0,27	313	468	30	*	*	*	*	*	*
6	EN 10067:1996 BF 140 x 8	GRADE A	193613	2220	12	Notes	,12	,18	,51	,012	,013	,12	,10	,32	,002	,002	,019	,003	,000	73	0,26	297	448	32	*	*	*	*	*	*
7	EN 10067:1996 BF 220 x 10	GRADE A	193520	37710	12	Notes	,13	,20	,53	,014	,011	,08	,15	,26	,003	,002	,030	,003	,000	72	0,27	310	456	31	*	*	*	*	*	*
8	EN 10067:1996 BF 220 x 11	GRADE A	193820	2650	12	Notes	,14	,21	,54	,006	,006	,05	,07	,16	,004	,002	,017	,002	,000	84	0,26	303	461	31	*	*	*	*	*	*
9	EN 10067:1996 BF 220 x 12	GRADE A	192801	4090	12	Notes	,13	,21	,53	,007	,011	,07	,09	,27	,003	,002	,023	,003	,000	75	0,27	311	466	31	*	*	*	*	*	*
10	EN 10067:1996 BF 240 x 10	GRADE A	193821	3980	12	Notes	,14	,20	,56	,009	,006	,05	,07	,17	,003	,003	,020	,003	,000	87	0,26	309	468	31	*	*	*	*	*	*
11	EN 10067:1996 BF 80 x 7	GRADE A	193782	4880	12	Notes	,12	,20	,51	,007	,010	,05	,07	,17	,003	,002	,019	,003	,001	75	0,24	334	458	31	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÖZKAN
KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office
☐ Reviewed
☒ Witnessed
CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : MEHMET EMİN TUĞLUOĞLU
15/11/2019

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

Bozköy Köyü 13. Cadde No:4
35800 Aliaga - IZMIR / TURKEY
Tel : 0090 232 625 15 15
Fax : 0090 232 625 20 87

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 09.11.2019
SERTİFİKA NO/Cert. No : 19-4693
SAYFA NO/Page No : 1 / 2

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 19-2172-2
Project No.

MÜŞTERİ REFERANS NO. : IST1917226
Customer Reference No.

[illegible]

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÇEKME TESTİ/*Tensile Test*: EN 6892-1 ÇENTİK TESTİ/*Impact Test*: ISO 148-1 EĞME TESTİ/*Bending Test*: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Şti.
İstanbul Office

☐ Reviewed

☒ Witnessed

 Lloyd's Register

CLASS SOCIETY : LLOYD'S REGISTER

SURVEYOR : MEHMET EMİN TUĞLUOĞLU

15/11/2019

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 09.11.2019
SERTİFİKA NO/Cert. No : 19-4694
SAYFA NO/Page No : 1 / 2
DNVGL No : N141JWS7

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO.
Project No. : OZ 19-2172-2

MÜŞTERİ REFERANS NO.
Customer Reference No. :

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)																MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement		
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm ²)	ÇEKME MUK. Tensile Strength (N/mm ²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7.5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	23	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.
																						ISO-V (Joule)			(mm)		°C			
1	EN 10067:1996 BF 120 x 6	VL A36	193716	2810	12	Notes	,15	,23	,90	,008	,005	,08	,09	,25	,030	,033	,029	,005	,001	76	0,35	410	560	25	36	33	34	34	10x5	0
2	EN 10067:1996 BF 120 x 6	VL A36	193623	4740	12	Notes	,14	,21	,92	,014	,005	,11	,14	,30	,025	,031	,046	,003	,001	72	0,36	411	563	24	36	35	41	37	10x5	0
3	EN 10067:1996 BF 120 x 7	VL A36	193716	2180	12	Notes	,16	,22	,90	,009	,007	,08	,09	,23	,027	,032	,030	,003	,001	76	0,36	395	543	25	61	55	56	57	10x5	0
4	EN 10067:1996 BF 140 x 7	VL A36	193603	7370	12	Notes	,14	,19	,96	,015	,010	,09	,07	,27	,020	,032	,024	,004	,001	77	0,36	407	557	25	42	39	42	41	10x5	0
5	EN 10067:1996 BF 140 x 8	VL A36	193634	2480	12	Notes	,14	,20	,90	,018	,008	,13	,10	,34	,017	,033	,028	,005	,001	75	0,36	395	534	26	107	80	79	89	10x7,5	0
6	EN 10067:1996 BF 220 x 12	VL A36	193885	5350	12	Notes	,14	,22	,96	,008	,009	,09	,08	,17	,025	,030	,022	,003	,001	75	0,35	395	541	25	104	97	101	101	10x10	0
7	EN 10067:1996 BF 240 x 10	VL A36	193954	2450	12	Notes	,15	,20	,97	,010	,009	,06	,08	,15	,029	,030	,028	,002	,001	76	0,35	394	538	25	89	76	86	84	10x10	0
8	EN 10067:1996 BF 80 x 7	VL A36	193768	4880	12	Notes	,15	,22	,90	,011	,011	,07	,08	,21	,024	,031	,022	,003	,001	75	0,34	396	536	25	34	35	32	34	10x5	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAİL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABİYYİK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 09.11.2019
SERTİFİKA NO/Cert. No : 19-4694
SAYFA NO/Page No : 2 / 2
DNVGL No : N141JWS6

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO.
Project No. : OZ 19-2172-2

MÜŞTERİ REFERANS NO.
Customer Reference No. :

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SİC. Temp.	
1	EN 10067:1996 BF 100 x 8	VL A	192869	1380	12	Notes	,16	,20	,54	,007	,007	,07	,07	,18	,003	,001	,018	,002	,001	73	0,29	326	477	30	*	*	*	*	*	*	*
2	EN 10067:1996 BF 120 x 7	VL A	193616	14270	12	Notes	,13	,20	,54	,013	,017	,10	,11	,32	,003	,002	,021	,003	,000	78	0,27	293	448	31	*	*	*	*	*	*	*
3	EN 10067:1996 BF 120 x 8	VL A	193717	7280	12	Notes	,14	,19	,55	,007	,006	,06	,10	,23	,004	,004	,022	,004	,001	78	0,27	307	463	31	*	*	*	*	*	*	*
4	EN 10067:1996 BF 140 x 7	VL A	193636	4096	12	Notes	,14	,18	,63	,017	,019	,14	,10	,32	,005	,006	,026	,004	,001	73	0,30	323	478	30	*	*	*	*	*	*	*
5	EN 10067:1996 BF 140 x 7	VL A	193637	17554	12	Notes	,13	,22	,51	,013	,012	,14	,11	,29	,008	,002	,026	,004	,001	75	0,27	313	468	30	*	*	*	*	*	*	*
6	EN 10067:1996 BF 140 x 8	VL A	193613	2220	12	Notes	,12	,18	,51	,012	,013	,12	,10	,32	,002	,002	,019	,003	,000	73	0,26	297	448	32	*	*	*	*	*	*	*
7	EN 10067:1996 BF 220 x 10	VL A	193520	37710	12	Notes	,13	,20	,53	,014	,011	,08	,15	,26	,003	,002	,030	,003	,000	72	0,27	310	456	31	*	*	*	*	*	*	*
8	EN 10067:1996 BF 220 x 11	VL A	193820	2650	12	Notes	,14	,21	,54	,006	,006	,05	,07	,16	,004	,002	,017	,002	,000	84	0,26	303	461	31	*	*	*	*	*	*	*
9	EN 10067:1996 BF 220 x 12	VL A	192801	4090	12	Notes	,13	,21	,53	,007	,011	,07	,09	,27	,003	,002	,023	,003	,000	75	0,27	311	466	31	*	*	*	*	*	*	*
10	EN 10067:1996 BF 240 x 10	VL A	193821	3980	12	Notes	,14	,20	,56	,009	,006	,05	,07	,17	,003	,003	,020	,003	,000	87	0,26	309	468	31	*	*	*	*	*	*	*
11	EN 10067:1996 BF 80 x 7	VL A	193782	4880	12	Notes	,12	,20	,51	,007	,010	,05	,07	,17	,003	,002	,019	,003	,001	75	0,24	334	458	31	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GUV. MD. QA&QC Manager
BURÇİN NİL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/ Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.10.2019
SERTİFİKA NO/Cert. No : 19-4282
SAYFA NO/Page No : 01 / 03

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917226
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)																MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement		
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm ²)	ÇEKME MUK. Tensile Strength (N/mm ²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. At.	NUMUNE Specimen	SIC. Temp.	
																															ISO-V (Joule)
1	EN 10067:1996 BF 100 x 6	GRADE A	192749	7950	12	Notes	,14	,18	,53	,014	,011	,08	,09	,24	,002	,001	,020	,001	,000	77	0,27	341	462	31	*	*	*	*	*	*	*
2	EN 10067:1996 BF 100 x 8	GRADE A	192644BA	2385	12	Notes	,15	,23	,98	,010	,008	,10	,10	,25	,024	,038	,025	,003	,001	76	0,37	402	518	28	*	*	*	*	*	*	*
3	EN 10067:1996 BF 100 x 8	GRADE A	192869	2385	12	Notes	,16	,20	,54	,007	,007	,07	,07	,18	,003	,001	,018	,002	,001	73	0,29	326	477	30	*	*	*	*	*	*	*
4	EN 10067:1996 BF 100 x 8	GRADE A	192996	2935	12	Notes	,14	,22	,65	,015	,017	,12	,09	,23	,003	,003	,020	,002	,001	79	0,30	330	472	31	*	*	*	*	*	*	*
5	EN 10067:1996 BF 100 x 8	GRADE A	192996L	2755	12	Notes	,14	,22	,68	,016	,016	,12	,09	,23	,002	,003	,020	,003	,001	79	0,30	347	479	30	*	*	*	*	*	*	*
6	EN 10067:1996 BF 120 x 6	GRADE A	193591BA	7120	12	Notes	,14	,16	,57	,012	,008	,10	,11	,24	,014	,002	,032	,003	,000	78	0,28	321	484	29	*	*	*	*	*	*	*
7	EN 10067:1996 BF 140 x 7	GRADE A	193637	20470	12	Notes	,13	,22	,51	,013	,012	,14	,11	,29	,008	,002	,026	,004	,001	75	0,27	313	468	30	*	*	*	*	*	*	*
8	EN 10067:1996 BF 140 x 8	GRADE A	193613	20960	12	Notes	,12	,18	,51	,012	,013	,12	,10	,32	,002	,002	,019	,003	,000	73	0,26	297	448	32	*	*	*	*	*	*	*
9	EN 10067:1996 BF 140 x 9	GRADE A	193610	7290	12	Notes	,14	,22	,56	,006	,010	,08	,09	,30	,003	,002	,021	,003	,000	77	0,28	293	465	31	*	*	*	*	*	*	*
10	EN 10067:1996 BF 160 x 10	GRADE A	193548L	5690	12	Notes	,11	,25	,54	,010	,008	,09	,08	,26	,005	,002	,022	,004	,001	73	0,25	322	479	30	*	*	*	*	*	*	*
11	EN 10067:1996 BF 160 x 7	GRADE A	193548	14440	12	Notes	,13	,19	,52	,011	,007	,09	,08	,24	,002	,002	,020	,003	,000	73	0,26	327	461	31	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÖZKAN
KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAİL BURAL

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office
☐ Reviewed
☒ Witnessed
Lloyd's Register
CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : MEHMET EMİN TUĞLUOĞLU
15/10/2019

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yanı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.10.2019
SERTİFİKA NO/Cert. No : 19-4282
SAYFA NO/Page No : 02 / 03

Müşteri/Client: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917226
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numunel/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test:quer D=2s < 180°

Notlar (Notes):

CELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

ILUSKAN!
Tulislah jawabanmu dengan jelas dan singkat!

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office

☐ Reviewed

☒ Witnessed

 Lloyd's Register

CLASS SOCIETY : LLOYD'S REGISTER

SURVEYOR : MEHMET EMİN TUĞLUOĞLU

15/10/2019

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.10.2019
SERTİFİKA NO/Cert. No : 19-4282
SAYFA NO/Page No : 03 / 03

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917226
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C	
																					10x10	10x7,5	10x5		
																					ISO-V (Joule)				
LR Rules	AH 36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	*	0	
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	23		

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.	
																															ISO-V (Joule)
1	EN 10067:1996 BF 100 x 6	AH 36	193391	4820	12	Notes	,16	,21	,90	,018	,009	,15	,10	,35	,021	,036	,023	,005	,001	76	0,38	429	559	25	31	27	31	30	10x5	0	
2	EN 10067:1996 BF 120 x 7	AH 36	193716	2380	12	Notes	,16	,22	,90	,009	,007	,08	,09	,23	,027	,032	,030	,003	,001	76	0,36	395	543	25	61	55	56	57	10x5	0	
3	EN 10067:1996 BF 140 x 10	AH 36	193605	3290	12	Notes	,14	,21	,90	,022	,009	,12	,08	,27	,026	,032	,023	,004	,001	78	0,34	413	558	24	76	86	78	80	10x10	0	
4	EN 10067:1996 BF 140 x 7	AH 36	193603F	1990	12	Notes	,15	,19	,92	,013	,011	,09	,07	,26	,020	,032	,023	,004	,001	77	0,35	403	556	25	37	45	48	43	10x5	0	
5	EN 10067:1996 BF 140 x 8	AH 36	193634	2480	12	Notes	,14	,20	,90	,018	,008	,13	,10	,34	,017	,033	,028	,005	,001	75	0,36	395	534	26	107	80	79	89	10x7,5	0	
6	EN 10067:1996 BF 160 x 8	AH 36	193534	2440	12	Notes	,14	,19	,93	,011	,005	,05	,10	,17	,019	,030	,028	,003	,001	77	0,33	386	525	26	61	53	52	55	10x7,5	0	
7	EN 10067:1996 BF 160 x 9	AH 36	193536	5030	12	Notes	,15	,20	,94	,013	,008	,08	,09	,20	,022	,030	,028	,003	,001	83	0,35	402	543	25	49	55	55	53	10x7,5	0	
8	EN 10067:1996 BF 180 x 9	AH 36	193619	5840	12	Notes	,15	,20	,96	,012	,010	,10	,14	,28	,026	,033	,046	,002	,001	77	0,37	423	574	24	45	48	43	45	10x7,5	0	
9	EN 10067:1996 BF 200 x 10	AH 36	193559	4830	12	Notes	,16	,22	1,00	,012	,007	,08	,08	,25	,026	,035	,026	,004	,001	74	0,37	413	564	24	90	99	113	101	10x10	0	

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.

We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the LLOYD'S REGISTER rules with satisfactory results.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Sti.
Istanbul Office
☐ Reviewed
☒ Witnessed
Lloyd's Register
CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

15/10/2019

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 16.10.2019
SERTİFİKA NO/Cert. No : 19-4301
SAYFA NO/Page No : 01 / 03
DNVGL No : N141JWS2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen (mm)	SIC. Temp.
1	EN 10067:1996 BF 100 x 6	VL A	192749	7950	12	Notes	,14	,18	,53	,014	,011	,08	,09	,24	,002	,001	,020	,001	,000	77	0,27	341	462	31	*	*	*	*	*	*
2	EN 10067:1996 BF 100 x 8	VL A	1926448A	2385	12	Notes	,15	,23	,98	,010	,008	,10	,10	,25	,024	,038	,025	,003	,001	76	0,37	402	518	28	*	*	*	*	*	*
3	EN 10067:1996 BF 100 x 8	VL A	192869	2385	12	Notes	,16	,20	,54	,007	,007	,07	,07	,18	,003	,001	,018	,002	,001	73	0,29	326	477	30	*	*	*	*	*	*
4	EN 10067:1996 BF 100 x 8	VL A	192996	2935	12	Notes	,14	,22	,65	,015	,017	,12	,09	,23	,003	,003	,020	,002	,001	79	0,30	330	472	31	*	*	*	*	*	*
5	EN 10067:1996 BF 100 x 8	VL A	192996L	2755	12	Notes	,14	,22	,68	,016	,016	,12	,09	,23	,002	,003	,020	,003	,001	79	0,30	347	479	30	*	*	*	*	*	*
6	EN 10067:1996 BF 120 x 6	VL A	1935918A	7120	12	Notes	,14	,16	,57	,012	,008	,10	,11	,24	,014	,002	,032	,003	,000	78	0,28	321	484	29	*	*	*	*	*	*
7	EN 10067:1996 BF 140 x 7	VL A	193637	20470	12	Notes	,13	,22	,51	,013	,012	,14	,11	,29	,008	,002	,026	,004	,001	75	0,27	313	468	30	*	*	*	*	*	*
8	EN 10067:1996 BF 140 x 8	VL A	193613	20960	12	Notes	,12	,18	,51	,012	,013	,12	,10	,32	,002	,002	,019	,003	,000	73	0,26	297	448	32	*	*	*	*	*	*
9	EN 10067:1996 BF 140 x 9	VL A	193610	7290	12	Notes	,14	,22	,56	,006	,010	,08	,09	,30	,003	,002	,021	,003	,000	77	0,28	293	465	31	*	*	*	*	*	*
10	EN 10067:1996 BF 160 x 10	VL A	193548L	5690	12	Notes	,11	,25	,54	,010	,008	,09	,08	,26	,005	,002	,022	,004	,001	73	0,25	322	479	30	*	*	*	*	*	*
11	EN 10067:1996 BF 160 x 7	VL A	193548	14440	12	Notes	,13	,19	,52	,011	,007	,09	,08	,24	,002	,002	,020	,003	,000	73	0,26	327	461	31	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL



CLASS SOCIETY : DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 16.10.2019
SERTİFİKA NO/Cert. No : 19-4301
SAYFA NO/Page No : 02 / 03
DNVGL No : N141JWS2

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 19-2172
Project No.

MÜŞTERİ REFERANS NO. :
Customer Reference No.

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)														MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/ *Impact Test*: ISO 148-1 EĞME TESTİ/ *Bending Test*: quer D=2s < 180°

Notlar (Notes):

CEİ İK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yanı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL

CLASS SOCIETY : DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK



KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 16.10.2019
SERTİFİKA NO/Cert. No : 19-4301
SAYFA NO/Page No : 03 / 03
DNVGL No : N141JWS3

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen	SIC. Temp.	
																		ISO-V (Joule)			(mm)		°C								
1	EN 10067:1996 BF 100 x 6	VL A36	193391	4820	12	Notes	,16	,21	,90	,018	,009	,15	,10	,35	,021	,036	,023	,005	,001	76	0,38	429	559	25	31	27	31	30	10x5	0	
2	EN 10067:1996 BF 120 x 7	VL A36	193716	2380	12	Notes	,16	,22	,90	,009	,007	,08	,09	,23	,027	,032	,030	,003	,001	76	0,36	395	543	25	61	55	56	57	10x5	0	
3	EN 10067:1996 BF 140 x 10	VL A36	193605	3290	12	Notes	,14	,21	,90	,022	,009	,12	,08	,27	,026	,032	,023	,004	,001	78	0,34	413	558	24	76	86	78	80	10x10	0	
4	EN 10067:1996 BF 140 x 7	VL A36	193603F	1990	12	Notes	,15	,19	,92	,013	,011	,09	,07	,26	,020	,032	,023	,004	,001	77	0,35	403	556	25	37	45	48	43	10x5	0	
5	EN 10067:1996 BF 140 x 8	VL A36	193634	2480	12	Notes	,14	,20	,90	,018	,008	,13	,10	,34	,017	,033	,028	,005	,001	75	0,36	395	534	26	107	80	79	89	10x7,5	0	
6	EN 10067:1996 BF 160 x 8	VL A36	193534	2440	12	Notes	,14	,19	,93	,011	,005	,05	,10	,17	,019	,030	,028	,003	,001	77	0,33	386	525	26	61	53	52	55	10x7,5	0	
7	EN 10067:1996 BF 160 x 9	VL A36	193536	5030	12	Notes	,15	,20	,94	,013	,008	,08	,09	,20	,022	,030	,028	,003	,001	83	0,35	402	543	25	49	55	55	53	10x7,5	0	
8	EN 10067:1996 BF 180 x 9	VL A36	193619	5840	12	Notes	,15	,20	,96	,012	,010	,10	,14	,28	,026	,033	,046	,002	,001	77	0,37	423	574	24	45	48	43	45	10x7,5	0	
9	EN 10067:1996 BF 200 x 10	VL A36	193559	4830	12	Notes	,16	,22	1,00	,012	,007	,08	,08	,25	,026	,035	,026	,004	,001	74	0,37	413	564	24	90	99	113	101	10x10	0	

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.



KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL



CLASS SOCIETY : DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.10.2019
SERTİFİKA NO/Cert. No : 19-4282
SAYFA NO/Page No : 01 / 03

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917226
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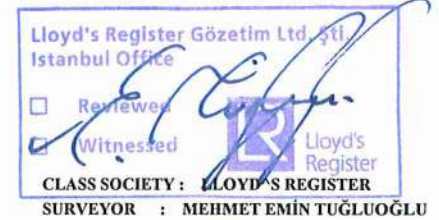
SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. At.	NUMUNE Specimen	SIC. Temp.
1	EN 10067:1996 BF 100 x 6	GRADE A	192749	7950	12	Notes	,14	,18	,53	,014	,011	,08	,09	,24	,002	,001	,020	,001	,000	77	0,27	341	462	31	*	*	*	*	*	*
2	EN 10067:1996 BF 100 x 8	GRADE A	192644BA	2385	12	Notes	,15	,23	,98	,010	,008	,10	,10	,25	,024	,038	,025	,003	,001	76	0,37	402	518	28	*	*	*	*	*	*
3	EN 10067:1996 BF 100 x 8	GRADE A	192869	2385	12	Notes	,16	,20	,54	,007	,007	,07	,07	,18	,003	,001	,018	,002	,001	73	0,29	326	477	30	*	*	*	*	*	*
4	EN 10067:1996 BF 100 x 8	GRADE A	192996	2935	12	Notes	,14	,22	,65	,015	,017	,12	,09	,23	,003	,003	,020	,002	,001	79	0,30	330	472	31	*	*	*	*	*	*
5	EN 10067:1996 BF 100 x 8	GRADE A	192996L	2755	12	Notes	,14	,22	,68	,016	,016	,12	,09	,23	,002	,003	,020	,003	,001	79	0,30	347	479	30	*	*	*	*	*	*
6	EN 10067:1996 BF 120 x 6	GRADE A	193591BA	7120	12	Notes	,14	,16	,57	,012	,008	,10	,11	,24	,014	,002	,032	,003	,000	78	0,28	321	484	29	*	*	*	*	*	*
7	EN 10067:1996 BF 140 x 7	GRADE A	193637	20470	12	Notes	,13	,22	,51	,013	,012	,14	,11	,29	,008	,002	,026	,004	,001	75	0,27	313	468	30	*	*	*	*	*	*
8	EN 10067:1996 BF 140 x 8	GRADE A	193613	20960	12	Notes	,12	,18	,51	,012	,013	,12	,10	,32	,002	,002	,019	,003	,000	73	0,26	297	448	32	*	*	*	*	*	*
9	EN 10067:1996 BF 140 x 9	GRADE A	193610	7290	12	Notes	,14	,22	,56	,006	,010	,08	,09	,30	,003	,002	,021	,003	,000	77	0,28	293	465	31	*	*	*	*	*	*
10	EN 10067:1996 BF 160 x 10	GRADE A	193548L	5690	12	Notes	,11	,25	,54	,010	,008	,09	,08	,26	,005	,002	,022	,004	,001	73	0,25	322	479	30	*	*	*	*	*	*
11	EN 10067:1996 BF 160 x 7	GRADE A	193548	14440	12	Notes	,13	,19	,52	,011	,007	,09	,08	,24	,002	,002	,020	,003	,000	73	0,26	327	461	31	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.



KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAİL BURAL



ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yanı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

15/10/2019

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.10.2019
SERTİFİKA NO/Cert. No : 19-4282
SAYFA NO/Page No : 02 / 03

Müşteri/Client: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917226
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numunel/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/ *Impact Test*: ISO 148-1 EĞME TESTİ/ *Bending Test*: quer D=2s < 180°

Notlar (Notes):

CELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yanı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

ILUSKAN!
MATA, Telinga, dan Ciuman Berarti...

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office

☐ Reviewed

☒ Witnessed

 Lloyd's Register

CLASS SOCIETY : LLOYD'S REGISTER

SURVEYOR : MEHMET EMİN TUĞLUOĞLU

15/10/2019

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.10.2019
SERTİFİKA NO/Cert. No : 19-4282
SAYFA NO/Page No : 03 / 03

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917226
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	AH 36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	*	
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	23	0

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.	
																															ISO-V (Joule)
1	EN 10067:1996 BF 100 x 6	AH 36	193391	4820	12	Notes	,16	,21	,90	,018	,009	,15	,10	,35	,021	,036	,023	,005	,001	76	0,38	429	559	25	31	27	31	30	10x5	0	
2	EN 10067:1996 BF 120 x 7	AH 36	193716	2380	12	Notes	,16	,22	,90	,009	,007	,08	,09	,23	,027	,032	,030	,003	,001	76	0,36	395	543	25	61	55	56	57	10x5	0	
3	EN 10067:1996 BF 140 x 10	AH 36	193605	3290	12	Notes	,14	,21	,90	,022	,009	,12	,08	,27	,026	,032	,023	,004	,001	78	0,34	413	558	24	76	86	78	80	10x10	0	
4	EN 10067:1996 BF 140 x 7	AH 36	193603F	1990	12	Notes	,15	,19	,92	,013	,011	,09	,07	,26	,020	,032	,023	,004	,001	77	0,35	403	556	25	37	45	48	43	10x5	0	
5	EN 10067:1996 BF 140 x 8	AH 36	193634	2480	12	Notes	,14	,20	,90	,018	,008	,13	,10	,34	,017	,033	,028	,005	,001	75	0,36	395	534	26	107	80	79	89	10x7,5	0	
6	EN 10067:1996 BF 160 x 8	AH 36	193534	2440	12	Notes	,14	,19	,93	,011	,005	,05	,10	,17	,019	,030	,028	,003	,001	77	0,33	386	525	26	61	53	52	55	10x7,5	0	
7	EN 10067:1996 BF 160 x 9	AH 36	193536	5030	12	Notes	,15	,20	,94	,013	,008	,08	,09	,20	,022	,030	,028	,003	,001	83	0,35	402	543	25	49	55	55	53	10x7,5	0	
8	EN 10067:1996 BF 180 x 9	AH 36	193619	5840	12	Notes	,15	,20	,96	,012	,010	,10	,14	,28	,026	,033	,046	,002	,001	77	0,37	423	574	24	45	48	43	45	10x7,5	0	
9	EN 10067:1996 BF 200 x 10	AH 36	193559	4830	12	Notes	,16	,22	1,00	,012	,007	,08	,08	,25	,026	,035	,026	,004	,001	74	0,37	413	564	24	90	99	113	101	10x10	0	

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.

We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the LLOYD'S REGISTER rules with satisfactory results.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Sti.
Istanbul Office
☐ Reviewed
☒ Witnessed
Lloyd's Register
CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

15/10/2019

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 16.10.2019
SERTİFİKA NO/Cert. No : 19-4301
SAYFA NO/Page No : 01 / 03
DNVGL No : N141JWS2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen (mm)	SIC. Temp.
1	EN 10067:1996 BF 100 x 6	VL A	192749	7950	12	Notes	,14	,18	,53	,014	,011	,08	,09	,24	,002	,001	,020	,001	,000	77	0,27	341	462	31	*	*	*	*	*	*
2	EN 10067:1996 BF 100 x 8	VL A	1926448A	2385	12	Notes	,15	,23	,98	,010	,008	,10	,10	,25	,024	,038	,025	,003	,001	76	0,37	402	518	28	*	*	*	*	*	*
3	EN 10067:1996 BF 100 x 8	VL A	192869	2385	12	Notes	,16	,20	,54	,007	,007	,07	,07	,18	,003	,001	,018	,002	,001	73	0,29	326	477	30	*	*	*	*	*	*
4	EN 10067:1996 BF 100 x 8	VL A	192996	2935	12	Notes	,14	,22	,65	,015	,017	,12	,09	,23	,003	,003	,020	,002	,001	79	0,30	330	472	31	*	*	*	*	*	*
5	EN 10067:1996 BF 100 x 8	VL A	192996L	2755	12	Notes	,14	,22	,68	,016	,016	,12	,09	,23	,002	,003	,020	,003	,001	79	0,30	347	479	30	*	*	*	*	*	*
6	EN 10067:1996 BF 120 x 6	VL A	1935918A	7120	12	Notes	,14	,16	,57	,012	,008	,10	,11	,24	,014	,002	,032	,003	,000	78	0,28	321	484	29	*	*	*	*	*	*
7	EN 10067:1996 BF 140 x 7	VL A	193637	20470	12	Notes	,13	,22	,51	,013	,012	,14	,11	,29	,008	,002	,026	,004	,001	75	0,27	313	468	30	*	*	*	*	*	*
8	EN 10067:1996 BF 140 x 8	VL A	193613	20960	12	Notes	,12	,18	,51	,012	,013	,12	,10	,32	,002	,002	,019	,003	,000	73	0,26	297	448	32	*	*	*	*	*	*
9	EN 10067:1996 BF 140 x 9	VL A	193610	7290	12	Notes	,14	,22	,56	,006	,010	,08	,09	,30	,003	,002	,021	,003	,000	77	0,28	293	465	31	*	*	*	*	*	*
10	EN 10067:1996 BF 160 x 10	VL A	193548L	5690	12	Notes	,11	,25	,54	,010	,008	,09	,08	,26	,005	,002	,022	,004	,001	73	0,25	322	479	30	*	*	*	*	*	*
11	EN 10067:1996 BF 160 x 7	VL A	193548	14440	12	Notes	,13	,19	,52	,011	,007	,09	,08	,24	,002	,002	,020	,003	,000	73	0,26	327	461	31	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURALI



CLASS SOCIETY : DNVGL
SURVEYOR : ÖZGÜR KOCABİYİK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 16.10.2019
SERTİFİKA NO/Cert. No : 19-4301
SAYFA NO/Page No : 02 / 03
DNVGL No : N141JWS2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numunel/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen	SIC. Temp.	
																									ISO-V (Joule)					(mm)	°C
12	EN 10067:1996 BF 160 x 8	VL A	193546	14655	12	Notes	,13	,21	,58	,011	,008	,10	,10	,22	,003	,002	,022	,003	,000	,75	0,27	313	466	31	*	*	*	*	*	*	
13	EN 10067:1996 BF 160 x 8	VL A	193547	2135	12	Notes	,13	,20	,56	,011	,007	,10	,08	,25	,002	,002	,021	,003	,000	,71	0,27	305	456	31	*	*	*	*	*	*	
14	EN 10067:1996 BF 160 x 9	VL A	193544	7540	12	Notes	,14	,20	,53	,008	,010	,08	,11	,22	,003	,002	,026	,004	,000	,76	0,28	311	474	30	*	*	*	*	*	*	
15	EN 10067:1996 BF 180 x 8	VL A	193636	9950	12	Notes	,13	,18	,60	,016	,016	,14	,10	,32	,003	,003	,024	,003	,001	,73	0,29	326	477	30	*	*	*	*	*	*	
16	EN 10067:1996 BF 180 x 9	VL A	193645	75330	12	Notes	,13	,22	,64	,015	,011	,13	,12	,30	,002	,003	,026	,002	,001	,79	0,30	341	488	29	*	*	*	*	*	*	
17	EN 10067:1996 BF 200 x 11	VL A	193484	5210	12	Notes	,12	,20	,53	,011	,011	,07	,15	,28	,002	,002	,026	,003	,000	,75	0,26	311	459	31	*	*	*	*	*	*	
18	EN 10067:1996 BF 200 x 9	VL A	193565	12260	12	Notes	,13	,21	,53	,010	,011	,11	,10	,24	,004	,002	,026	,003	,000	,67	0,27	317	470	30	*	*	*	*	*	*	
19	EN 10067:1996 BF 260 x 10	VL A	193516	2380	12	Notes	,14	,19	,60	,011	,011	,07	,10	,27	,003	,003	,020	,004	,000	,72	0,28	304	453	31	*	*	*	*	*	*	

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL



CLASS SOCIETY: DNVGL
SURVEYOR : ÖZGÜR KOCABİYİK

ÇEKME TESTİ/ Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):
ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)
DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel
Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 16.10.2019
SERTİFİKA NO/Cert. No : 19-4301
SAYFA NO/Page No : 03 / 03
DNVGL No : N141JWS3

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2172 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen	SIC. Temp.	
																		ISO-V (Joule)			(mm)		°C								
1	EN 10067:1996 BF 100 x 6	VL A36	193391	4820	12	Notes	,16	,21	,90	,018	,009	,15	,10	,35	,021	,036	,023	,005	,001	76	0,38	429	559	25	31	27	31	30	10x5	0	
2	EN 10067:1996 BF 120 x 7	VL A36	193716	2380	12	Notes	,16	,22	,90	,009	,007	,08	,09	,23	,027	,032	,030	,003	,001	76	0,36	395	543	25	61	55	56	57	10x5	0	
3	EN 10067:1996 BF 140 x 10	VL A36	193605	3290	12	Notes	,14	,21	,90	,022	,009	,12	,08	,27	,026	,032	,023	,004	,001	78	0,34	413	558	24	76	86	78	80	10x10	0	
4	EN 10067:1996 BF 140 x 7	VL A36	193603F	1990	12	Notes	,15	,19	,92	,013	,011	,09	,07	,26	,020	,032	,023	,004	,001	77	0,35	403	556	25	37	45	48	43	10x5	0	
5	EN 10067:1996 BF 140 x 8	VL A36	193634	2480	12	Notes	,14	,20	,90	,018	,008	,13	,10	,34	,017	,033	,028	,005	,001	75	0,36	395	534	26	107	80	79	89	10x7,5	0	
6	EN 10067:1996 BF 160 x 8	VL A36	193534	2440	12	Notes	,14	,19	,93	,011	,005	,05	,10	,17	,019	,030	,028	,003	,001	77	0,33	386	525	26	61	53	52	55	10x7,5	0	
7	EN 10067:1996 BF 160 x 9	VL A36	193536	5030	12	Notes	,15	,20	,94	,013	,008	,08	,09	,20	,022	,030	,028	,003	,001	83	0,35	402	543	25	49	55	55	53	10x7,5	0	
8	EN 10067:1996 BF 180 x 9	VL A36	193619	5840	12	Notes	,15	,20	,96	,012	,010	,10	,14	,28	,026	,033	,046	,002	,001	77	0,37	423	574	24	45	48	43	45	10x7,5	0	
9	EN 10067:1996 BF 200 x 10	VL A36	193559	4830	12	Notes	,16	,22	1,00	,012	,007	,08	,08	,25	,026	,035	,026	,004	,001	74	0,37	413	564	24	90	99	113	101	10x10	0	

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.



KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL



CLASS SOCIETY : DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 05.08.2019
SERTİFİKA NO/Cert. No : 19-3084
SAYFA NO/Page No : 1 / 4

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2109 MÜŞTERİ REFERANS NO. Customer Reference No. : IST1917144
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)														MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
			10x10	10x7,5	10x5																			
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*
ÜRÜN BİLGİSİ/Product Information																								

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen (mm)	SIC. Temp.
12	EN 10067:1996 BF 200 x 10	GRADE A	192686	34800	12	Notes	,14	,19	,53	,006	,010	,07	,08	,20	,003	,001	,021	,002	,000	74	0,26	319	462	31	*	*	*	*	*	*
13	EN 10067:1996 BF 220 x 10	GRADE A	192668	11480	12	Notes	,15	,22	,58	,009	,011	,11	,12	,27	,002	,002	,036	,003	,000	76	0,30	317	482	30	*	*	*	*	*	*
14	EN 10067:1996 BF 220 x 12	GRADE A	192802	5030	12	Notes	,17	,20	,54	,010	,015	,09	,09	,25	,002	,001	,022	,003	,000	78	0,30	309	469	30	*	*	*	*	*	*
15	EN 10067:1996 BF 240 x 10	GRADE A	192275L	2450	12	Notes	,16	,18	,57	,014	,010	,09	,09	,20	,003	,002	,019	,003	,001	74	0,30	303	451	31	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)
DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

ÖZKAN
KALİTE GÜV. MD. / QC Manager
BURÇİN NAL BERAL

Lloyd's Register Gözetim Ltd. Şti.
İstanbul Office
☐ Reviewed
☒ Witnessed
CLASS SOCIETY: LLOYD'S REGISTER
SURVEYOR : MEHMET EMİN TUĞLUOĞLU

05/08/2019

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 15.08.2019
SERTİFİKA NO/Cert. No : 19-3307
SAYFA NO/Page No : 2 / 4
DNVGL No : N141JWS2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2109 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C	
																					10x10	10x7,5	10x5		
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value						
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Ar.	NUMUNE Specimen	SIC. Temp.	
12	EN 10067:1996 BF 200 x 10	VLA	192686	34800	12	Notes	,14	,19	,53	,006	,010	,07	,08	,20	,003	,001	,021	,002	,000	74	0,26	319	462	31	*	*	*	*	*	*	*
13	EN 10067:1996 BF 220 x 10	VLA	192668	11480	12	Notes	,15	,22	,58	,009	,011	,11	,12	,27	,002	,002	,036	,003	,000	76	0,30	317	482	30	*	*	*	*	*	*	*
14	EN 10067:1996 BF 220 x 12	VLA	192802	5030	12	Notes	,17	,20	,54	,010	,015	,09	,09	,25	,002	,001	,022	,003	,000	78	0,30	309	469	30	*	*	*	*	*	*	*
15	EN 10067:1996 BF 240 x 10	VLA	192275L	2450	12	Notes	,16	,18	,57	,014	,010	,09	,09	,20	,003	,002	,019	,003	,001	74	0,30	303	451	31	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAIL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 29.08.2019
SERTİFİKA NO/Cert. No : 19-3555
SAYFA NO/Page No : 1 / 3
DNVGL No : N141JWS3

Müşteri/Client: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. : OZ 19-2109 Project No. MÜŞTERİ REFERANS NO. : Customer Reference No.
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	0	
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29		23

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/ *Impact Test*: ISO 148-1 EĞME TESTİ/ *Bending Test*: quer D=2s < 180°

Notlar (Notes):

CELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL

CLASS SOCIETY : DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 29.08.2019
SERTİFİKA NO/Cert. No : 19-3555
SAYFA NO/Page No : 2 / 3
DNVGL No : N141JWS5

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. : OZ 19-2109 Project No. MÜŞTERİ REFERANS NO. : Customer Reference No.
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL E36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	620	*	*	*	-40	
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29		23

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/ *Impact Test*: ISO 148-1 EĞME TESTİ/ *Bending Test*: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

[Signature]
KEVIN SANTIAGO

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL



CLASS SOCIETY : DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 29.08.2019
SERTİFİKA NO/Cert. No : 19-3555
SAYFA NO/Page No : 3 / 3
DNVGL No : N141JWS2

Müşteri/Customer: HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 19-2109
Project No.

MÜŞTERİ REFERANS NO. :
Customer Reference No.

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)														MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÇEKME TESTİ/*Tensile Test*: EN 6892-1 ÇENTİK TESTİ/*Impact Test*: ISO 148-1 EĞME TESTİ/*Bending Test*: quer D=2s < 180°

Notlar (Notes):

CELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL

CLASS SOCIETY : DNVGL
SURVEYOR : ÖZGÜR KOCABIYIK

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 04.09.2019
SERTİFİKA NO/Cert. No : 19-3638
SAYFA NO/Page No : 1 / 3

Müşteri/Client: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. : OZ 19-2109-2 <i>Project No.</i> MÜŞTERİ REFERANS NO. : IST1917144 <i>Customer Reference No.</i>
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	AH 36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	*	
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	23	

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: $\text{quer } D=2s < 180^\circ$

Notlar (Notes):
ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF/Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office

☐ Reviewed

☒ Witnessed

 Lloyd's Register

CLASS SOCIETY: LLOYD'S REGISTER

SURVEYOR : MEHMET EMİN TUĞLUOĞLU

07/09/2019

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 04.09.2019
SERTİFİKA NO/Cert. No : 19-3638
SAYFA NO/Page No : 2 / 3

Müşteri/Client: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. : OZ 19-2109-2 Project No. MÜŞTERİ REFERANS NO. : IST1917144 Customer Reference No.
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	EH 36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	620	*	*	*	-40	
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29		23

[illegible]

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.


LEON KAN
President

KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL

Lloyd's Register Gözetim Ltd. Şti
İstanbul Office

☐ Reviewed

☒ Witnessed

 Lloyd's Register

CLASS SOCIETY : LLOYD'S REGISTER

SURVEYOR : MEHMET EMİN TUĞLUOĞLU

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/ *Impact Test*: ISO 148-1 EĞME TESTİ/ *Bending Test*: quer D=2s < 180°

Notlar (Notes):

CELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

07/09/2019

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 04.09.2019
SERTİFİKA NO/Cert. No : 19-3638
SAYFA NO/Page No : 3 / 3

Müşteri/Client: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. : OZ 19-2109-2 Project No. MÜŞTERİ REFERANS NO. : IST1917144 Customer Reference No.
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)														MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*

[illegible]

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test:quer D=2s < 180°

Notlar (Notes):

CELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE GÜV. MD. QA&QC Manager
BURCİN NAIL BURAL

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office

☐ Reviewed
☒ Witnessed

CLASS SOCIETY : LLOYD'S REGISTER

SURVEYOR : MEHMET EMİN TUĞLUOĞLU

07/29/2019



Bozköy Köyü 13. Cadde No:4
35800 Aliaga - IZMİR / TURKEY
Tel : 0090 232 625 15 15
Fax : 0090 232 625 20 87

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 28.08.2018
SERTİFİKA NO/Cert. No : 18-4935
SAYFA NO/Page No : 1 / 2
DNVGL No : N141JWRB

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO.
Project No. : OZ 18-2102

MÜŞTERİ REFERANS NO.
Customer Reference No. :

SPESİFİKASYON/Specification							KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)																	MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard		KALİTE/Grade		Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Spectimet (mm)			SICAKLIK Temperature					
																			(ppm)				10x10	10x7,5	10x5	ISO-V (Joule)		°C			
DNVGL-SHIP		VL A36		Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	*	*	*	0			
				Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	23						
ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																	MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value				
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelbi. Erçimen Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp	
1	EN 10067:1996 BF 120 x 8	VL A36	183644	13470	12	Notes	,13	,20	,97	,011	,008	,09	,07	,26	,022	,031	,011	,002	,013	72	0,34	359	508	25	112	136	119	122	10x7,5	0	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. to	SÜREKLİ Döküm Continuous	SIC. Temp.
1	EN 10067:1996 BF 120 x 8	VL A36	183644	13470	12	Notes	,13	,20	,97	,011	,008	,09	,07	,26	,022	,031	,011	,002	,013	72	0,34	359	508	25	112	136	119	122	10x7,5	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2016-01) rules with satisfactory results.



KALİTE GÜV. MD. QA/QC Manager
BURCİN NAIL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABİYİK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 18.08.2018
SERTİFİKA NO/Cert. No : 18-4935
SAYFA NO/Page No : 2 / 2
DNVGL No : N141JWRA

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 18-2102
Project No:

MÜŞTERİ REFERANS NO.
Customer Reference No.

SPESİFİKASYON/Specification							KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)																MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement					
STANDART/Standard		KALİTE/Grade		Limit																	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature				
					C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev				10x10	10x7,5	10x5						
DNVGL-SHIP		VL A		Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*						
				Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*					
ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Avg.	SUMUSE Specimen	SIC. Temp.	
1	EN 10067:1996 BF 100 x 7	VL A	183755	5100	12	Notes	,13	,18	,53	,008	,004	,07	,08	,23	,002	,000	,012	,001	,001	75	0,25	306	456	30	*	*	*	*	*	*	*
2	EN 10067:1996 BF 120 x 10	VL A	183507	3324	12	Notes	,13	,18	,55	,008	,006	,12	,07	,24	,003	,000	,015	,002	,001	75	0,27	321	464	30	*	*	*	*	*	*	*
3	EN 10067:1996 BF 120 x 10	VL A	183670	1596	12	Notes	,13	,19	,57	,006	,016	,10	,07	,24	,002	,000	,018	,002	,001	66	0,26	312	460	29	*	*	*	*	*	*	*
4	EN 10067:1996 BF 140 x 9	VL A	183509	6850	12	Notes	,11	,21	,58	,010	,010	,11	,06	,16	,003	,000	,009	,001	,001	77	0,24	308	452	30	*	*	*	*	*	*	*
5	EN 10067:1996 BF 200 x 9	VL A	183905	8020	12	Notes	,12	,16	,51	,006	,006	,09	,08	,22	,002	,000	,013	,001	,001	75	0,24	325	482	30	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2016-01) rules with satisfactory results.

ÖZKAN®
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD. Quality Manager
BURÇİN NAİL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABİYYİK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

Bozköy Köyü 13. Cadde No:4
35800 Aliaga - İZMİR / TURKEY
Tel : 0090 232 625 15 15
Fax : 0090 232 625 20 87

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 16.08.2018
SERTİFİKA NO/Cert. No : 18-4935
SAYFA NO/Page No : 1 / 2

Müşteri/Customer: HIERROS ARTETA POLIGONO INDUSTRIAL AS GANDARAS 105-A 36400 PORRINO (PONTEVEDRA), NIF : A-36.624.005 SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. : OZ 18-2102 <i>Project No.</i> MÜŞTERİ REFERANS NO. : PRJ11079964-1 <i>Customer Reference No.</i>
---	--	---

SPESİFİKASYON/Specification				KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)														MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)			SICAKLIK Temperature °C		
																				10x10	10x7.5	10x5			
																								ISO-V (Joule)	
LR Rules	AH 36	Max Min	,18 *	,50 ,10	1,60 ,90	,035 *	,035 *	,20 *	,40 *	,35 *	* ,015	,100 ,030	,080 *	* *	* *	* *	90 *	0,38 *	* 355	630 490	* 21	* 34	* 29	* 23	0

[illegible]

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/ *Impact Test*: ISO 148-1 EĞME TESTİ/ *Bending Test*: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Decoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.



02/09/2018
CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 16.08.2018
SERTİFİKA NO/Cert. No : 18-4935
SAYFA NO/Page No : 2 / 2

Müşteri/Customer:
HIERROS ARTETA
POLIGONO INDUSTRIAL AS GANDARAS 105-A
36400 PORRINO (PONTEVEDRA),
NIF : A-36.624.005 SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO.
Project No. : OZ 18-2102
MÜŞTERİ REFERANS NO.
Customer Reference No. : PRJ11079964-1

SPESİFİKASYON/Specification							KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)																	MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard		KALİTE/Grade		Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature					
LR Rules		GRADE A		Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	10x10	10x7,5	10x5	°C				
				Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	°C				
ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)																	MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value				
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	SUNUŞU Signature	SIC. Temp	
1	EN 10067:1996 BF 100 x 7	GRADE A	183755	5100	12	Notes	,13	,18	,53	,008	,004	,07	,08	,23	,002	,000	,012	,001	,001	75	0,25	306	456	30	*	*	*	*	*	*	*
2	EN 10067:1996 BF 120 x 10	GRADE A	183507	3324	12	Notes	,13	,18	,55	,008	,006	,12	,07	,24	,003	,000	,015	,002	,001	75	0,27	321	464	30	*	*	*	*	*	*	*
3	EN 10067:1996 BF 120 x 10	GRADE A	183670	1596	12	Notes	,13	,19	,57	,006	,016	,10	,07	,24	,002	,000	,018	,002	,001	66	0,26	312	460	29	*	*	*	*	*	*	*
4	EN 10067:1996 BF 140 x 9	GRADE A	183509	6850	12	Notes	,11	,21	,58	,010	,010	,11	,06	,16	,003	,000	,009	,001	,001	77	0,24	308	452	30	*	*	*	*	*	*	*
5	EN 10067:1996 BF 200 x 9	GRADE A	183905	8020	12	Notes	,12	,16	,51	,006	,006	,09	,08	,22	,002	,000	,013	,001	,001	75	0,24	325	482	30	*	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.

Lloyd's Register Gözetim Ltd. Şti
İstanbul Ofisi
☐ Reviewed
☒ Witnessed
Lloyd's Register

BURÇİN
KALİTE GÜV. MD. QA/QC Manager
BURÇİN NAİL BURALI

02/09/2018
CLASS SOCIETY: LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°
Notlar (Notes):
ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)
DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel
Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.



STIGTERSTAAL

Astilleros Balenciaga S.A.
Attn. to Mr. J. Sansinenea
Santiago Auzoa, 1
E 20750 ZUMAIA (GUIPUZCOA)
Spain

Gorinchem, 29th of March 2013

Concern: Your reference : 406/0048
 Our reference : 89927

Dear Mr. Sansinenea

Herewith we send you the certificates of your order numbers mentioned above:

Description	Cuttet from	Length	Quantity	Heatno.	Plateno.
Bulbflat 260x11		12000	5	270533	
AH36+BV		12000	6	270725	
Bulbflat 240x11		12000	6	40017	
Grade A+BV		12000	4	40018	
Bulbflat 200x12		12000	12	17227	
Grade A+BV		12000	5	622113	
		12000	4	612518	
Flat 350x8	12000x2000x8	6000	1	830624	80303104
DH36+BV	12000x3000x8		2	723264	29896202
Flat 200x20	12000x2500x20	6000	6	08905544	H8-16664
EH36+BV					
Flat 200x20	12000x2500x20	6000	10	292116	6806121-1
DH36+BV			5	202685	6807390-1
Flat 150x20	12000x2500x20	6000	24	08905544	H8-16664
EH36+BV					

Stigterstaal B.V.
www.stigterstaal.nl

Avelingen-Oost 5
4202 MN Gorinchem
The Netherlands

P.O. Box 72
4200 AB Gorinchem
The Netherlands

phone: +31(0)183 - 633 788
fax: : +31(0)183 - 633 427
e-mail: sales@stigterstaal.nl

Bank: ING, Gorinchem
66.13.60.202
IBAN: NL42INGB0661360202

BIC: INGBNL2A
VAT no.: NL.00.46.41.590.B.02
K.v.K./Ch.o.c.: 23042082

Any quotations, offers and agreements relating to goods to be delivered and/or services to be provided by us shall be subject to the Terms of Sale and Delivery of the wholesale trade association Staalfederatie Nederland which were filed with the Chamber of Commerce on 2 January 2008 under number V40409040. A copy of these Terms may be downloaded from www.staalfederatie.nl and/or will be sent to you free of charge upon request. Any other terms and conditions or different technical standards are expressly rejected.



Description	Cuttet from	Length	Quantity	Heatno.	Plateno.
Flat 150x20 DH36+BV	12000x2500x20	6000	6	202685	6807390-1
Flat 100x8 DH36+BV	12000x2000x8	6000	4	830624	80303104
	12000x3000x8		2	723264	29896202
Flat 80x8 DH36+BV	12000x2000x8	6000	1	830624	80303104

The BV certificate is not yet in our possession and will be send to you as soon as we have received it.

We hope to have been of service to you.

Yours sincerely,

STIGTERSTAAL B.V.

Enclosures.



HOESCH
SPUNDWAND UND PROFIL

Ein Unternehmen der Salzgitter Gruppe

Alte Radstraße 27 D-44147 Dortmund

GERMANISCHER LLOYD

ORIGINAL



INSPECTION REPORT,
ACCORDING TO DIN EN 10204 / 3.2

Zeugnis-Nr.: 50143 ORDNUNGS-NR.: 41508 D
Certificate no.: CERTIFICATE NO
Zeugnis-Seite: 3 VON/OF 4
Page no.:
Dortmund, 9.06.08

TEST 3-FACH

Be Or	D001691	Lieferwerk Supplier	Durchwahl, Ruf-Nr Tel no.	Wertauftrags-Nr. Workorder no.	
			185-6178	35-310019-00	
Erzeugnis/Produkt Lieferbedingungen/Specifications	STABSTAHL DIN EN 10067			Gesamt-Masse kg/Total mass Gesamt-Stückzahl/Total pieces	516462 1106
				Teil-Nr /Part no.	2 TEIL
Güte/Quality Lieferbedingungen/Specifications	GRAD A36 GL unbehandelt/ as rolled				

Pos. Item	Stück Quantity	Abmessungen des Erzeugnisses, Dimensions of product mm.	Masse kg Mass	Schmelzen-Nr. Heat no.	PROBEN-NR SAMPLE NO
8	14 96 7 62	WF 260/10	16000	6339 43469 3170 28074	270752 270753 270755 270756
9	5 50 100	WF 260/11	16000	2432 24320 48640	270533 270540 270725
10	4	WF 260/11	16000	1946 269037	05634 05635 05636 05637 05622 05623 05638

Chemische Zusammensetzung in %, gemäß Herstellerangabe /Chemical composition %, acc. to manufacturer statement												Form/Type
Schmelzen-Nr. Heat no.	K	C	SI	MN	P	S	AL	CU	CR	NI	MO	
270538		0,15	0,18	1,02	0,012	0,009	0,043	0,125	0,061	0,086	0,019	
270724		0,16	0,20	1,03	0,014	0,003	0,030	0,151	0,075	0,088	0,023	
270752		0,15	0,20	1,05	0,011	0,001	0,041	0,035	0,031	0,031	0,004	
270753		0,16	0,21	1,04	0,009	0,008	0,047	0,115	0,043	0,078	0,013	
270754		0,16	0,21	1,05	0,012	0,015	0,075	0,120	0,068	0,125	0,025	
269037		0,16	0,20	1,01	0,009	0,006	0,046	0,061	0,054	0,045	0,010	

Mechanische Eigenschaften/Mechanical properties														L = Lage/Direction
PROBEN- SAMPLE NR/NO	L	Streckgr. Yield stress N/MM2	Zugfestigk. Tensile strength	Dehnung (A) Elongation L %	Einschn. Red of Area	Kerbschlagprüfung Impact test Form Type	L Temp	1	2	3	4			
05622	L	439	551	A5 31.5	01	L-	0	104	135	108	115			
05623	L	419	553	A5 31.5	01	L-	0	101	90	102	97			
05638	L	398	522	A5 34.0	01	L-	0	153	185	191	176			
05639	L	415	549	A5 32.5	01	L-	0	118	90	102	103			
05629	L	405	524	A5 34.0	01	L-	0	141	135	155	143			
05630	L	409	529	A5 35.0	01	L-	0	95	87	142	108			

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MADE BY THE EAF-PROCESS AND
IN ACCORDANCE WITH THE RULES OF GERMANISCHEN LLOYD FOR GRAD AH 36 STEEL.
FURTHER MORE WE CERTIFY THE CORRECTNESS OF THE MENTIONED HEAT NUMBERS AND ANALYSES.

HSP Q
ABNAHME

SURVEYOR TO GERMANISCHER LLOYD

X. Ahrenfeld

AHRENFELD



1867

DIESER BELEG WURDE MASCHINELL ERSTELLT

WORKS CERTIFICATE

Acc. To standard:
EN 10204-3.1.C

Certificate no:
81835-19

Issued date :
02.07.2008

Page no : 1 of 1



Customer:

Specifications:

HOLLANDPROFILE GEMAESS EN 10067:1996 IN GRADE GL-A ABNAHMEPRÜFZEUGNIS
GERMANISCHER LLOYD EN 10204-3.2..

Your order no.:

K002200

Our order no.:

X7808-003

Destination:

Shipment:

23.06.2008

Total Weight :

37250

TEST RESULTS:

[illegible][illegible]

We hereby confirm that these materials are manufactured and tested in accordance with the named specifications and comply with the requirements

For Ruukki Profiler AS

Age Streamlining
Leading Metallurgist
Molebas

Katrine Stordalshei
Quality Manager
Ruukki Profiller AS

Ruukki Profler AS, P.O.Box 500, N-8601 Mo i Rana, Norway

Surveyor:



5167 MRA

2687

WORKS CERTIFICATE

Acc. To standard: EN 10204-3.1.C	Certificate no: 81445-31
Issued date: 04.07.2006	Page no: 2 of 3



Customer:	Specifications: HOLLANDPROFILE GEMAESS EN 10067:1996 IN GRADE GL-A MIT ABNAHME UND TEST DES GERMANISCHER LLOYD.	Your order no.: K001243
	Destination:	Our order no.: X7529-008
	Shipment: FRI SKY	Total Weight: 173159
		30.06.2006

TEST RESULTS:

Order details								Tensile properties			Charpy V								
Item	Cast	Marking	Dimension	Length	Pieces	Weight (kg)	Item weight (kg)	ReH (N/mm2)	Rm (N/mm2)	A5 (%)	Orien-tation	Dimension	Test-Temp	No 1 (J)	No 2 (J)	No 3 (J)	Lateral expansion	Shear Fract	Reduction of area (%)
70	17096	APP00328	140x8.0	12000	55	7161	9114	359	456	39,5									
	17233	APP00328	140x8.0	12000	15	1953	9114	312	462	35,7	x	10x7,5	20	133	139	135			
90	17231	APP00391	140x7.0	12000	25	2925	2925	357	476	38,6									
100	17227	APP00524	200x12.0	16000	20	7450	7450	317	445	37,8									
110	17213	APP00525	220x12.0	16000	10	4195	4195	333	455	36,2									
130	17206	APP00064	200x9.0	16000	8	2377	59424	326	448	37,8	X	10x7,5	20	124	125	123			
	17225	APP00064	200x9.0	16000	192	57047	59424	333	418	37,3									
								332	440	36,4									
140	17206	APP00066	200x10.0	16000	70	22557	22557	313	438	35,8									
150	17208	APP00070	220x10.0	16000	2	729	3643	313	433	34,9									

Item	Cast	Delivery Condition	C %	Si %	Mn %	P %	S %	N %	Cr %	Ni %	Al %	Cu %	Mo %	Nb %	V %	Ti %	B %	As %	Sn %	Pb %	Bi %	Sb %	Ca %	Zn %	H %	PCM	CE
70	17096	AR	0,09	0,26	1,00	0,018	0,009	0,006	0,02	0,01	0,032	0,03	0,002	0,001	0,002	0,002	0,0008	0,002	0,004	0,001	0,000	0,001	0,0037	0,000	0,0000	0,16	0,26
	17233	AR	0,13	0,21	0,77	0,021	0,009	0,006	0,03	0,02	0,033	0,03	0,008	0,001	0,003	0,002	0,0005	0,002	0,004	0,001	0,000	0,001	0,0027	0,000	0,0000	0,18	0,27
90	17231	AR	0,14	0,19	0,82	0,018	0,006	0,005	0,03	0,02	0,032	0,04	0,005	0,001	0,003	0,002	0,0006	0,003	0,004	0,001	0,000	0,001	0,0028	0,000	0,0000	0,19	0,29
100	17227	AR	0,12	0,18	0,78	0,021	0,012	0,004	0,03	0,01	0,035	0,04	0,003	0,001	0,001	0,002	0,0005	0,003	0,003	0,001	0,000	0,001	0,0022	0,000	0,0000	0,17	0,26
110	17213	AR	0,14	0,22	0,87	0,012	0,007	0,006	0,03	0,02	0,030	0,03	0,005	0,001	0,001	0,002	0,0005	0,001	0,003	0,001	0,000	0,001	0,0027	0,000	0,0000	0,20	0,30
130	17206	AR	0,13	0,20	0,66	0,013	0,009	0,005	0,02	0,02	0,032	0,04	0,004	0,001	0,002	0,002	0,0005	0,002	0,004	0,001	0,000	0,001	0,0034	0,000	0,0000	0,18	0,25
	17225	AR	0,11	0,19	0,73	0,021	0,012	0,006	0,04	0,02	0,034	0,04	0,004	0,001	0,001	0,002	0,0005	0,001	0,004	0,001	0,000	0,001	0,0025	0,000	0,0000	0,16	0,24
140	17206	AR	0,13	0,20	0,66	0,013	0,009	0,005	0,02	0,02	0,032	0,04	0,004	0,001	0,002	0,002	0,0005	0,002	0,004	0,001	0,000	0,001	0,0034	0,000	0,0000	0,18	0,25
150	17208	AR	0,12	0,20	0,65	0,011	0,010	0,005	0,02	0,01	0,030	0,03	0,004	0,001	0,001	0,002	0,0005	0,001	0,003	0,001	0,000	0,001	0,0031	0,000	0,0000	0,16	0,24

We hereby confirm that these materials are manufactured and tested in accordance with the named specifications and comply with the requirements

For Ruukki Profiler AS

M. Molab
Leading Metallurgist
Molab as

J.A. Sundev
Quality manager
Ruukki Profiler AS

Ruukki Profiler AS, P.O.Box 500, N-8601 Mo i Rana, Norway

Surveyor:



1201



HOESCH

SPUNDWAND UND PROFIL

Ein Unternehmen der Salzgitter Gruppe

Alte Radstraße 27 D-44147 Dortmund

GERMANISCHER LLOYD

ORIGINAL



INSPECTION REPORT,
ACCORDING TO DIN EN 10204 / 3.2

Zeugnis-Nr.: 59905 BESCHEINIGUNGS-NR.:
Certificate no.: CERTIFICATE NO
Zeugnis-Seite: 1 VON/OF 2
Page no.: 2

Dortmund, 1.12.06

TEST 3-FACH

Be O	K001450	Lieferwerk Supplier	Durchwahl, Ruf-Nr. Tel. no.	Werksauftrags-Nr. Workorder no.	
			185-6178	35-308558-00	
Erzeugnis/Produkt Lieferbedingungen/Specifications	STABSTAHL DIN EN 10067	Gesamt-Masse kg/Total mass Gesamt-Stückzahl/Total pieces			
		54476 200			
Güte/Quality Lieferbedingungen/Specifications	GRAD A GL	unbehandelt/ as rolled			
		Teil-Nr./Part no. 5 TEIL			

Pos. Item	Stück Quantity	Abmessungen des Erzeugnisses, Dimensions of product mm.	Masse kg Mass	Schmelzen-Nr. Heat no.	PROBEN-NR SAMPLE NO	
12	20	WF 200/10	12000	4824	612518	05802
13	80	WF 200/9	12000	17856	612518	05803
17	20	WF 200/12	16000	7456	622113	05803

Chemische Zusammensetzung in %, gemäß Herstellerangabe / Chemical composition %, acc. to manufacturer statement

Schmelzen-Nr. Heat no.	K	C	SI	MN	P	S	AL	CU	CR	NI	MO			Form/Type
612518		0,12	0,20	0,86	0,013	0,011	0,030	0,040	0,030	0,020	0,010			
622113		0,12	0,22	0,84	0,014	0,004	0,043	0,030	0,030	0,020	0,005			

Mechanische Eigenschaften/Mechanical properties

PROBEN- SAMPLE NR/NO	L	Streckgr. Yield stress N/MM2	Zugfestigk. Tensile strength	Dehnung (A) Elongation %	Einschn. Red of Area	Kerbschlagprüfung Impact test Form Type	L Temp	1	2	3	Ø
05802	L	346	454	A5 34.0							
05803	L	319	445	A5 34.5							

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MADE BY THE LDAC-PROCESS AND
IN ACCORDANCE WITH THE RULES OF GERMANISCHEN LLOYD FOR GRAD A STEEL.
FURTHER MORE WE CERTIFY THE CORRECTNESS OF THE MENTIONED HEAT NUMBERS AND ANALYSES.

HSP Q
ABNAHME

GEPRUEFT VOM BESICHTIGER DES GERMANISCHEN LLOYD



WINKLER

DIESER BELEG WURDE MASCHINELL ERSTELLT

2452

2K



HOESCH
SPUNDWAND UND PROFIL

Ein Unternehmen der Salzgitter Gruppe

Alte Radstraße 27 D-44147 Dortmund

GERMANISCHER LLOYD

ORIGINA



INSPECTION REPORT,
ACCORDING TO DIN EN 10204 / 3.2

Zeugnis-Nr.: 59960 BESCHEINIGUNGS-NR.:
Certificate no.: CERTIFICATE NO
Zeugnis-Seite: 1 VON/OF 2
Page no.:

Dortmund, 6.03.07

TEST 3-FAC

Br O:	K001632	Lieferwerk Supplier	Durchwahl, Ruf-Nr. Tel. no.	Werksauftrags-Nr. Workorder no.		
			185-6178	35-308771-00		
Erzeugnis/Produkt Lieferbedingungen/Specifications	STABSTAHL DIN EN 10067			Gesamt-Masse kg/Total mass Gesamt-Stückzahl/Total pieces	182136 750	Teil-Nr./Part no. TEI

Güte/Quality
Lieferbedingungen/Specifications

GRAD A
GL unbehandelt/ as rolled

Pos. Item	Stück Quantity	Abmessungen des Erzeugnisses, Dimensions of product mm.	Masse kg Mass	Schmelzen-Nr. Heat no.	PROBEN-NR SAMPLE NO	
6	100	WF 200/10	12000	24120	622810	05001 05002
7	100	WF 200/10	12000	24120	622810	
8	50	WF 200/10	12000	12060	622810	
18	100	WF 200/9	12000	22320	613670	05003 05004
19	100	WF 200/9	12000	22320	613670	
20	100	WF 200/9	12000	22320	613670	
45	50	WF 200/12	12000	13980	612518	05005

Chemische Zusammensetzung in %, gemäß Herstellerangabe /Chemical composition %, acc. to manufacturer statement

Schmelzen-Nr. Heat no.	K	C	SI	MN	P	S	AL	CU	CR	NI	MO			Form/Type
622810		0,12	0,21	0,84	0,011	0,006	0,033	0,030	0,020	0,010	0,006			
613670		0,12	0,20	0,82	0,013	0,007	0,033	0,020	0,030	0,010	0,008			
612518		0,12	0,20	0,86	0,013	0,011	0,030	0,040	0,030	0,020	0,010			

Mechanische Eigenschaften/Mechanical properties

PROBEN- SAMPLE NR/NO	L	Streckgr. Yield stress N/MM2	Zugfestigk. Tensile strength N/MM2	Dehnung (A) Elongation		Einschn. Red of Area	Kerbschlagprüfung Impact test						
				L	%		Form Type	L Temp	1	2	3	Ø	
05001	L	327	444	A5	36.0								
05002	L	334	441	A5	35.5								
05003	L	383	472	A5	35.0								
05004	L	384	473	A5	35.5								
05005	L	286	431	A5	36.5								

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MADE BY THE LDAC-PROCESS AND
IN ACCORDANCE WITH THE RULES OF GERMANISCHEN LLOYD FOR GRAD A STEEL.
FURTHER MORE WE CERTIFY THE CORRECTNESS OF THE MENTIONED HEAT NUMBERS AND ANALYSES.

ISP Q
ABNAHME

GEPRUEFT VOM BESICHTIGER DES GERMANISCHEN LLOYD



AHRENFELD

DIESER BELEG WURDE MASCHINELL ERSTELLT

Werks-Nr. Works-No. No de l'usine	A08 3270537	Zeugnis-Nr. Certificate-No. No de certificat	A03 1471646001	Sendungs-Nr. Shipment-No. No de envoi	42722568	Seite-Nr. Page-No. Page-No	1
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ThyssenKrupp Steel Europe AG · 47161 Duisburg	A01	BESCHEINIGUNG ÜBER MATERIALPRÜFUNGEN DOCUMENT ON MATERIAL TESTS DOCUMENT DE CONTROL DES MATERIAUX	EN 10204 EN 10204 EN 10204
A06 STIGTERSTAAL BV P.O. BOX 72 NL 4200 AB GORINCHEM		A02 ABNAHMEPRUEFZEUGNIS 3.2	

Bestell-Nr. Order-No. No de commande	10216	 25.5.2012	to
		 0203 52 75220	
		 0203 52 75213	
A07.1-A07.5		 abnahme_zeugnisse.grobblech@thyssenkrupp.com	A05

Werkstoff ; Quality ; Matériau / Lieferbedingungen ; Specification ; Conditions de livraison	B02/B03
GR.DH36 RULES LR 07.11 TOL.EN10029 KL.B/N OB EN 10163 KL.A/1	

Kennzeichnung: WERKSTOFF; SCHMELZ-NR.; FERTIGUNGS-/PROBE-NR.	Zeichen des Lieferwerkes:	
Marking:	Supplier's mark:	
Marque: B06	Marque d'usine:	ThyssenKrupp Steel

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MADE BY THE UNDERMENTIONED PROCESS APPROVED BY AND IN ACCORDANCE WITH THE RULES OF LLOYDS REGISTER FOR GR.DH36 RULES LR 07.11 TOL.EN10029 KL.B/N OB EN 10163 KL.A/1 STEEL, AND IS THAT WHICH HAS BEEN TESTED IN THE PRESENCE OF THE SOCIETY'S REPRESENTATIVE WITH SATISFACTORY RESULTS. B01 ERZEUGNISFORM GROBBLECH, BESAEUMTE KANTEN LISTE DER MATERIALIDENTEN <table> <tr> <th>POS.</th><th>B07 PAKET</th><th>B07 BLECH-NR.</th><th>B07 SCHMELZ-NR.</th><th>B08 STUECK ZAHL</th><th>B13 GEWICHT GEWOG. Kg</th></tr> <tr> <td>023</td><td>B09 x B10 x B11 8,0 x 2000,0 x 12000 [mm]</td><td></td><td>830624</td><td>3</td><td>4.618</td></tr> <tr> <td></td><td>80303104</td><td></td><td></td><td>*</td><td>3</td></tr> <tr> <td></td><td></td><td></td><td></td><td>**</td><td>3</td></tr> <tr> <td></td><td></td><td></td><td></td><td></td><td>4.618</td></tr> </table> TRANSPORT-NR. BZ- RX-21					POS.	B07 PAKET	B07 BLECH-NR.	B07 SCHMELZ-NR.	B08 STUECK ZAHL	B13 GEWICHT GEWOG. Kg	023	B09 x B10 x B11 8,0 x 2000,0 x 12000 [mm]		830624	3	4.618		80303104			*	3					**	3						4.618	
POS.	B07 PAKET	B07 BLECH-NR.	B07 SCHMELZ-NR.	B08 STUECK ZAHL	B13 GEWICHT GEWOG. Kg																														
023	B09 x B10 x B11 8,0 x 2000,0 x 12000 [mm]		830624	3	4.618																														
	80303104			*	3																														
				**	3																														
					4.618																														
Lloyd's Register EMEA Business Centre Central Dortmund BETTE																																			

CHEMISCHE ZUSAMMENSETZUNG DER SCHMELZE IN %

C71-C99

B07

SCHMELZ-NR	C	SI	MN	P	S	AL-G	B-G	CR	CU	MO	N
830624	,139	,013	1,370	,013	,0021	,032	,0002	,027	,019	,003	,0034
	NB	NI	TI	V	ALM	62	CE1				
830624	,008	,018	,002	,001	,032	,011	,38				

CE1=C+MN/6+(CR+MO+V)/5+(NI+CU)/15

62 = NB+V+TI

C70 SCHMELZVERFAHREN OXYGENSTAHL

MECHANISCHE EIGENSCHAFTEN ZUGVERSUCH

B07	C00	C01/ 02	B05	C10	C03	C11		C12		C13	
SCHM.- NR.	PROBE- NR.	LAGE	ZUST.	FORM	ALTER	TEMP.	R	Rm	R/ Rm	L0	A
						°C	MPa	MPa	%	mm	%
830624	*80303101	0401	0004	0002	0006	+20	441	RE H	536	82	90 24
											13078

MECHANISCHE EIGENSCHAFTEN KERBSCHLAG BIEGEVERSUCH

B07	C00	C01/ 02	B05	C40	C41	C03	C42	C42	C42	C43
SCHM.- NR.	PROBE-NR.	LAGE	ZUST.	FORM	B mm	ALTER	PRUEF- TEMP.	ARBEIT [Joule]		
							°C			
830624	*80303101	0101	0004	0007	7,50	0006	-20	151	148	133
		0401	0004	0007	7,50	0006	-40	72	81	76

* PROBEBLECH NICHT IN LIEFERUNG ENTHALTEN

LEGENDEN

PROBENZUSTAND
0004 = NORMALISIERTALTERUNG
0006 = UNGEALTERNPROBENFORM KERBSCHLAG
0007 = CHARPY- VPROBENLAGE (IST)
0101 = LAENGS KOPF OBERFLAECHE
0401 = QUER KOPF OBERFLAECHEPROBENFORM ZUGVERSUCH
0002 = FLACHZUG

LIEFERZUSTAND PRODUKT

023 NORMALISIERT

Z02

ABNAHMEBEAUFTRAGTER DES HERSTELLERS
THE MANUFACTURER'S AUTHORIZED INSPECTION REPRESENTATIVE
LE REPRÉSENTANT AUTORISÉ DU CONTRÔLEUR DU PRODUCTEUR

Kern

Z03 Prof. Dr.-Ing. Kern



ThyssenKrupp Steel Europe AG

Abnahme

Es wird bestätigt, dass die Lieferung
den Vereinbarungen bei der Bestellung entspricht.We hereby certify, that the above mentioned materials
have been delivered in accordance with the terms of order.

Z01

Nous attestons que les produits livrés sont conformes
aux stipulations de la commande.

ThyssenKrupp Steel Europe
LLOYD'S REGISTER EMEA DTM 1200001

Werks-Nr. Works-No. No de l'usine	A08 3350904	Zeugnis-Nr. Certificate-No. No de certificat	A03 1504539001	Sendungs-Nr. Shipment-No. No de envoi	43053517	Seite-Nr. Page-No. Page-No	1
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ThyssenKrupp Steel Europe AG · 47161 Duisburg	A01	BESCHEINIGUNG ÜBER MATERIALPRÜFUNGEN DOCUMENT ON MATERIAL TESTS DOCUMENT DE CONTROL DES MATERIAUX	EN 10204 EN 10204 EN 10204
A06 STIGTERSTAAL BV P.O. BOX 72 NL 4200 AB GORINCHEM		A02 ABNAHMEPRUEFZEUGNIS 3.2	

Bestell-Nr. Order-No. No de commande	10507	31.10.2012	to
		0203 52 75220	
		0203 52 75213	
A07.1-A07.5		abnahme_zeugnisse.grobblech@thyssenkrupp.com	A05

Werkstoff ; Quality ; Matériau / Lieferbedingungen ; Specification ; Conditions de livraison	B02/B03
GR.DH36 RULES LR 07.11 TOL.EN10029 KL.B/N OB EN 10163 KL.A/2	

Kennzeichnung: WERKSTOFF; SCHMELZ-NR.; FERTIGUNGS-/PROBE-NR.	Zeichen des Lieferwerkes:	
Marking:	Supplier's mark:	
Marque: B06	Marque d'usine:	ThyssenKrupp Steel

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN
MADE BY THE UNDERMENTIONED PROCESS APPROVED BY AND IN ACCORDANCE
WITH THE RULES OF LLOYDS REGISTER FOR
GR.DH36 RULES LR 07.11
TOL.EN10029 KL.B/N OB EN 10163 KL.A/2
STEEL,
AND IS THAT WHICH HAS BEEN TESTED IN THE PRESENCE OF THE
SOCIETY'S REPRESENTATIVE WITH SATISFACTORY RESULTS.

B01

ERZEUGNISFORM

GROBBLECH, BESAEUMTE KANTEN

LISTE DER MATERIALIDENTEN

POS.	B07 PAKET	B07 BLECH-NR.	B07 SCHMELZ-NR.	B08 STUECK ZAHL	B13 GEWICHT GEWOG. Kg
006	B09 x B10 x B11 7,0 x 3000,0 x 12000 [mm]	29848202 29851101	723264 723264	1 1	1.964 1.964
				*	3.928
007	8,0 x 3000,0 x 12000 [mm]	29894202 29896202 31280101	723264 723264 723264	1 1 1	2.269 2.269 2.269
				*	6.807

Lloyd's Register EMEA
Business Centre Central
Dortmund

BETTE

Werks-Nr. Works-No. No de l'usine		A08 3350904		Zeugnis-Nr. Certificate-No. No de certificat		A03 1504539001		Sendungs-Nr. Shipment-No. No de envoi		43053517		Seite-Nr. Page-No. Page-No		2	
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POS.	B07 PAKET	B07 BLECH-NR.	B07 SCHMELZ-NR.	B08 STUECK ZAHL	B13 GEWICHT GEWOG.
				** 5	10.735
	TRANSPORT-NR. OL-05-GF				

CHEMISCHE ZUSAMMENSETZUNG DER SCHMELZE IN % C71-C99

B07 SCHMELZ-NR	C	SI	MN	P	S	AL-G	B-G	CR	CU	MO	N
723264	,170	,400	1,500	,016	,0010	,039	,0004	,030	,030	,010	,0044
	NB	NI	TI	V	ALM	62	CE1				
723264	,027	,050	,020	,000	,039	,047	,43				

CE1=C+MN/6+(CR+MO+V)/5+(NI+CU)/15
 62 = NB+V+TI
 C70 SCHMELZVERFAHREN OXYGENSTAHL

MECHANISCHE EIGENSCHAFTEN ZUGVERSUCH

B07 SCHM.- NR.	C00 PROBE- NR.	C01/ 02 LAGE	B05 ZUST.	C10 FORM	C03 ALTER	TEMP.	C11 R	R Art	C12 Rm	R/ Rm	L0	C13 A	Rm*A
						°C	MPa		MPa	%	mm	%	
723264*29421		0401	0004	0002	0006	+20	458	RE H	579	79	55	27	15633
723264*29898		0401	0004	0002	0006	+20	448	RE H	571	78	90	32	18272

MECHANISCHE EIGENSCHAFTEN KERBSCHLAG BIEGEVERSUCH

B07 SCHM.- NR.	C00 PROBE-NR.	C01/ 02 LAGE	B05 ZUST.	C40 FORM	C41 B mm	C03 ALTER	PRUEF- TEMP.	C42	C42	C42	C43
							°C	1	2	3	M
723264*29073		0101	0004	0007	5,00	0006	-20	94	94	96	95
		0101	0004	0007	5,00	0006	-40	92	80	95	89
723264*29421		0101	0004	0007	7,50	0006	-20	142	109	169	140
		0101	0004	0007	7,50	0006	-40	142	91	132	122
723264*29847		0101	0004	0007	5,00	0006	-20	60	68	61	63
		0101	0004	0007	5,00	0006	-40	52	39	50	47

* PROBLEBLECH NICHT IN LIEFERUNG ENTHALTEN

LEGENDEN

PROBENZUSTAND	PROBENLAGE (IST)
0004 = NORMALISIERT	0101 = LAENGSKOPF OBERFLAECHE
	0401 = QUERKOPF OBERFLAECHE
ALTERUNG	PROBENFORM ZUGVERSUCH
0006 = UNGEALTERN	0002 = FLACHZUG
PROBENFORM KERBSCHLAG	
0007 = CHARPY-V	

LIEFERZUSTAND PRODUKT

006, 007 NORMALISIERT

Z02

ABNAHMEBEAUFTRAGTER DES HERSTELLERS
THE MANUFACTURER'S AUTHORIZED INSPECTION REPRESENTATIVE
LE REPRÉSENTANT AUTORISÉ DU CONTRÔLEUR DU PRODUCTEUR

Kern

Z03 Prof. Dr.-Ing. Kern

Bette



ThyssenKrupp Steel Europe AG

Abnahme

Es wird bestätigt, dass die Lieferung den Vereinbarungen bei der Bestellung entspricht.

We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

Z01 Nous attestons que les produits livrés sont conformes aux stipulations de la commande.

产品质量证明书
INSPECTION CERTIFICATE

中国·江西省新余市冶金路1号 邮编:338001
No. 1 YEJIN ROAD, XINYU CITY, JIANGXI PROVINCE, CHINA
POST CODE: 338001

TEL: +86 790-6292368 FAX: +86 790-6294727

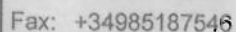
本公司船体结构用钢板荣获中国名牌产品称号（有效期：2006.9-2009.9）。
并通过 ABS、BV、CCS、DNV、GL、KR、LR、NK、RINA船级社工厂认可。

[illegible]

打印 PRINTER:



702-703



A01

HOLANDA

10555

A02

A08

Page de

LLOYD, S REGISTER

720 - 10 C. 3 INCHES

LLOYD'S REGISTER EMEA

ArcelorMittal

ArcelorMittal
Factoria de Gijón
FCS Commercial
 (Tôle Forte / Heavy plate sales)
 Tel: +34985187265
 Fax: +34985187546

AENOR
R
 Empresa Registrada
 UNE-EN ISO 9001
 FR-0030/1992
CHAPA
 PLATE
 BLECHE
 TOLES
 LAMIERE

CERTIFICADO DE INSPECCION / CERTIFICAT D'INSPECTION

CERTIFICADO DE INSPECCION 3.2 S/ EN 10204 / EN 10168
 CERTIFICAT D'INSPECTION 3.2 SELON EN 10204 / EN 10168

ORDEN SUMINISTRO /
 Ordre de livraison
B15816

N. CERTIFICADO /
 N. Certificat
44064-03

HOJA 03 de 04
 Page de: 04

CLIENTE / Client

STIGTERSTAAL BV
AVELINGEN-OOST, 5
4200 AB - GORINCHEM
HOLANDA

PEDIDO CLIENTE / Commande client

10555

FECHA / Date **2012-06-22**

SOCIEDAD INSPECTORA /
 Société d'inspection

LLOYD, S REGISTER

R

- (1) C=Cabeza (Tête)
 P=Pie (Pied)
 S=Piel (Peau)
 4=1/4 espesor (Epaisseur)
 3=1/3 espesor (Epaisseur)
 E=Espesor completo (Epaisseur totale)
 N=Núcleo (Cœur)
 (2) L=Longitudinal (Longitudinal)
 T=Transversal (Transversal)
 Z=Espesor a través de la sección (Epaisseur a través de la section)
 D=Diagonal (Diagonal)
- (3) C=Cilíndrica (Cylindrique)
 P=Prismática (Prismatique)
 (4) RESILIENCIA (Résilience)
 J=Julios (Joules)
 K=Julios/cm2 (Joules/cm2)
 E=Lateral exp. in mm (Lateral on mm)
 F=Area (Surface)
 (6) Z = Striction %
- (5) =Bruto Laminación (Brut Laminage)
 A = N+R
 L = Conformado de Normalización (Laminage de Normalisation)
 T = Tratamiento Termomec. (Traitement Thermomécanique)
 N = Normalizado (Normalisé)
 920° 10°C. 1,5 min/mm
 R = Revenido (Revenu)
 720° 10°C. 3 min/mm

ESPECIFICACION /
 Spécifications
NAVAL GRADO DH-36
LLOYD'S REGISTER EMEA

POSICION (Ligne de commande)	COLADA (Coulée)	IDENTIFICACION DE LA CHAPA (Identification de la tôle)	ESTADO SUMINISTRO (Etat de livraison)	ULTRASONIDOS (Imp. ultrasons)	IDENTIFICACION DE LA MUESTRA (Identification de l'échantillon)	ESPESOR DE LA MUESTRA (Epaisseur de l'échantillon)	Trat. Térmico Probeta (Traitement thermique éprouvette)	ENSAYO DE TRACCION (Essai de traction)										DOBLADO (Bend test)				RESILIENCIA (Impact test)				DUREZA (Hardness test)				OTROS ENSAYOS (Other tests)																			
								LOCALIZACION (Localisation)	ORIENTACION (Orientation)	TEMP. ENSA. (Temp. essai)	FORMA PROBETA (Forme éprouvette)	Re			C11	Rm. (T.S.)	C12	ALARGAMIENTO (Elongation)	ALARGAMIENTO (Elongation)	ESTRICCION (Striction)	LOCALIZACION (Localisation)	ORIENTACION (Orientation)	MANDRIL (Mandrin)	ANGULO (Angle)	B = BIEN (OK)	ORIENTACION (Orientation)	LOCALIZACION (Localisation)	UNIDADES (Unités)	TEMP. ENSAYO (Temp. Essai)	INDIVIDUALES (Individuals)			MEDIA (Moyenne)	TIPO DE ENSAYO (Type d'essai)															
												SUPERIOR (Supérieur)	0,2 %	0,5 %																																			
																														MPA (N/MM2)	C16	C13			C14	C15	C01	C02	Ø=nE n	C52	C50	C02	C01	C33	C44	°C	C42 C31	C43 C32	C30 C40 C41
A10	B07	B07	B04	D02	C00	mm C04	B05	(1) C01	(2) C02	°C C03	(3) C10	MPA (N/MM2)										5/5.65 % C13	C2*P8 % C14	% C15	(1) C01	(2) C02	Ø=nE n	C52	C50	(2) C02	(1) C01	(6) C33 C44	°C C03	1	2	3	C43 C32	C30 C40 C41											
002	292441	6806149-1 6806150-1 6806151-1	N N N		0602073 0531036 0602073 0531036	15,00 15,00 15,00 15,00		CE CE CE	T T T		P	422				546		34,6								L	CS	J	-20	144	163	151	153	ISO-V 10															
003	292440	6805956-1 6805957-1 6805958-1	N N N		0602073 0606001 0606001	15,00 20,00 20,00		CE CE CE	T T T		P	422 398 398				546 531 531		34,6 29,5 29,5								L L L	CS CS CS	J J J	-20 -20 -20	170 170 170	176 176 176	142 142 142	163 163 163	ISO-V 10 ISO-V 10 ISO-V 10															
	292441	6806102-1	N		0606001	20,00		CE	T		P	398				531		29,5							L	CS	J	-20	170	176	142	163	ISO-V 10																
	292440	6806107-1 6806108-1	N N		0603068 0606001	20,00 20,00		CE CE	T T		P	377 398				519 531		32,7 29,5							L L	CS CS	J J	-20 -20	096 170	135 176	110 142	114 163	ISO-V 10 ISO-V 10																
	292116	6806121-1	N		0608091	20,00		CE	T		P	402				533		30,8							L	CS	J	-20	170	176	142	163	ISO-V 10																
004	202756	6807394-1	N		0609040	25,00		CE	T		P	369				507		33,6							L	CS	J	-20	176	179	179	178	ISO-V 10																
	292441	4064663-1 4064747-1	N N		0610095 0607052	25,00 20,00		CE CE	T T		P	384 407				518 525		32,4 32,0							L L	CS CS	J J	-20 -20	116 093	127 103	138 126	127 107	ISO-V 10 ISO-V 10																
		6806252-1	N		0603068	20,00		CE	T		P	407				525		32,0							L	CS	J	-20	096	135	110	114	ISO-V 10																
		6806253-1	N		0607052	20,00		CE	T		P	407				525		32,0							L	CS	J	-20	096	135	110	114	ISO-V 10																
		6806254-1	N		0603068	20,00		CE	T		P	407				525		32,0							L	CS	J	-20	096	135	110	114	ISO-V 10																
		6806255-1	N		0607052	20,00		CE	T		P	407				525		32,0							L	CS	J	-20	096	135	110	114	ISO-V 10																
		6806256-1	N		0603068	20,00		CE	T		P	407				525		32,0							L	CS	J	-20	093	103	126	107	ISO-V 10																
		6806257-1	N		0607052	20,00		CE	T		P	407				525		32,0							L	CS	J	-20	096	135	110	114	ISO-V 10																
		6806258-1	N		0607052	20,00		CE	T		P	407				525		32,0							L	CS	J	-20	093	103	126	107	ISO-V 10																
005	202753	4064580-1 4064581-1 4064581-2	N N N		0607056 0603079 0603079	20,00 25,00 25,00		CE CE CE	T T T		P	373 404 404				502 527 527		35,8 29,4 29,4							L L L	CS CS CS	J J J	-20 -20 -20	074 074 074	127 127 127	092 092 092	098 098 098	ISO-V 10 ISO-V 10 ISO-V 10																

Por la Sociedad Inspectora
 (La Société d'inspection)
LLOYD'S REGISTER

Por
 (Par)
 Jefe de Calidad Plenos
 Chef de Qualité Plats
 Upstream Asturias
Francisco Suárez-Velásquez

ArcelorMittal



ArcelorMittal
Factoria de Gijón
FCS Commercial
 (Tole Forte / Heavy plate sales)
 Tel: +34985187265
 Fax: +34985187546

AENOR

 Empresa Registrada
 UNE-EN ISO 9001
 ER-0030/1992
CHAPA
 PLATE
 BLECHE
 TOLES
 LAMIERE

CERTIFICADO DE INSPECCION / CERTIFICAT D'INSPECTION
 CERTIFICADO DE INSPECCION 3.2 S/ EN 10204 / EN 10168
 CERTIFICAT D'INSPECTION 3.2 SELON EN 10204 / EN 10168

ORDEN SUMINISTRO /
 Ordre de livraison
 B15816

N. CERTIFICADO /
 N. Certificat
 44064-03

HOJA 04 de 04
 Page de: 04

CLIENTE / Client
 STIGTERSTAAL BV
 AVELINGEN-OOST, 5
 4200 AB - GORINCHEM
 HOLANDA

PELIDO CLIENTE / Commande client
 10555

FECHA / Date
 2012-06-22

SOCIEDAD INSPECTORA /
 Société d'inspection
LLOYD, S REGISTER

(1) C=Cabeza (Tete)
 P=Pie (Pied)
 S=Piel (Peau)
 4=1/4 espesor (Epaisseur)
 3=1/3 espesor (Epaisseur)
 E=Espesor completo (Epaisseur totale)
 N=Núcleo (Coeur)
 (2) L=Longitudinal (Longitudinal)
 T=Transversal (Transversal)
 Z=Espesor a través de la sección (Epaisseur a través la section)
 D=Diagonal (Diagonal)

(3) C=Cilindrica (Cylindrique)
 P=Prismática (Prismatique)
 (4) RESILIENCIA (Résilience)
 J=Julios (Joules)
 K=Julios/cm2 (Joules/cm2)
 E=Lateral exp. in mm (Lateral en mm)
 F=Area (Surface)
 Z=Espesor a través de la sección (Epaisseur a través la section)
 (6) Z = Striction %

(5) =Bruto Laminación (Brut Laminage)
 A = N+R
 L = Conformado de Normalización (Laminage de Normalisation)
 T = Tratamiento Termomec. (Traitement Thermomec.)
 N = Normalizado (Normalisé)
 920°. 10°C. 1,5 min/mm
 R = Revenido (Revenu)
 720°. 10°C. 3 min/mm

ESPECIFICACION /
 Spécifications
 NAVAL GRADO DH-36
 LLOYD'S REGISTER EMEA

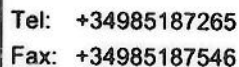
POSICION (Ligne de commande)	COLADA (Coulée)	IDENTIFICACION DE LA CHAPA (Identification de la tôle)	ESTADO SUMINISTRO (Etat de livraison)	ULTRASONIDOS (Insp. ultrasons)	IDENTIFICACION DE LA MUESTRA (Identification de l'échantillon)	ESPESOR DE LA MUESTRA (Epaisseur de l'échantillon)	Trat. Térmico Probeta (Trait thermique éprouvette)	ENSAYO DE TRACCION (Essai de traction)										DOBLADO (Bend test)				RESILIENCIA (Impact test) DUREZA (Hardness test) OTROS ENSAYOS (Other tests)																									
								LOCALIZACION (Localisation)	ORIENTACION (Orientation)	TEMP. ENSA. (Temp. essai)	FORMA PROBETA (Forme éprouvette)	Re			Rm. (T.S.)	ALARGAMIENTO (Elongation)	ALARGAMIENTO (Elongation)	ESTRICCION (Striction)	LOCALIZACION (Localisation)	ORIENTACION (Orientation)	MANDRIL (Mandrin)	ANGULO (Angle)	B = BIEN (OK)	ORIENTACION (Orientation)	LOCALIZACION (Localisation)	UNIDADES (Unités)	TEMP. ENSAYO (Temp. Essai)	INDIVIDUALES (Individuels)			MEDIA (Moyenne)	TIPO DE ENSAYO (Type d'essai)															
												SUPERIOR (Supérieur)	0,2 %	0,5 %														C42 C31	1	2			3														
																																		C11	C12	C13	C14	C15	C01	C02	C51	C52	C50	C02	C01	C33 C44	C03
					MPa (N/MM2)					C16	5/6.55 %	C2*P8 %	%	(1) C01	(2) C02	Ø=nE n	C52	C50	(2) C02	(1) C01	(3) C33 C44	°C C03				C43 C32	C30 C40 C41																				
A10	B07	B07	B04	D02	C00	mm C04	B05	(1) C01	(2) C02	°C C03	(3) C10						C16	% C13	% C14	% C15	(1) C01	(2) C02	Ø=nE n C51	C52	C50	(2) C02	(1) C01	(3) C33 C44	°C C03	1	2	3	C43 C32	C30 C40 C41													
005	202756	4065005-1	N		0610095	25,00		CE	T		P	384			518		32,4									L	CS	J	-20	116	127	138	127	ISO-V 10													
		4065005-2	N		0610095	25,00		CE	T		P	384			518		32,4									L	CS	J	-20	116	127	138	127	ISO-V 10													
	202547	6805951-1	N		0528057	25,00		CE	T		P	385			527		31,2									L	CS	J	-20	092	113	096	100	ISO-V 10													
		6806095-1	N		0528057	25,00																					L	CS	J	-20	092	113	096	100	ISO-V 10												
006	292116	4064635-1	N		0528058	25,00		CE	T		P	379			529		30,6										L	CS	J	-20	131	174	148	151	ISO-V 10												
		0526036	N		0603079	30,00		CE	T		P	375			523		27,8										L	CS	J	-20	074	127	092	098	ISO-V 10												
	202753	4064797-1	N		0607019	25,00		CE	T		P	386			514		31,2										L	CS	J	-20	127	102	117	115	ISO-V 10												
		0615057	N		0610094	30,00		CE	T		P	389			506		30,3										L	CS	J	-20	106	136	109	117	ISO-V 10												
007	202757	4065001-1	N		0610094	30,00		CE	T		P	391			516		31,3										L	CS	J	-20	148	146	133	142	ISO-V 10												
	292199	4065014-1	N		0610016	37,00		CE	T		P	384			526		25,6										L	CS	J	-20	096	059	081	079	ISO-V 10												
	291063	4065681-1	N		0401025	35,00		CE	T		P	369			509		30,3										L	CS	J	-20																	

Por la Sociedad Inspectora
 (La Société d'inspection)


Por
 (Par)
 Jefe de Calidad Planos
 Chef de Qualité Plats
 Upstream Asturias
 Francisco Suárez-Vaidés

ArcelorMittal





HOLANDA

(5) = Bruto Laminación (Brut Laminage)
A = N+R
L = Conformado de Normalización (Laminage de Normalisation)
T = Tratamiento Termomec. (Traitement Thermomec.)
N = Normalizado (Normalisé)
920°. 10°C. 1,5 min/mm
R = Revenido (Revenu)
720°. 10°C. 3 min/mm

LLOYD'S REGISTER EMEA

ArcelorMittal



STIGTERSTAAL

Astilleros Balenciaga S.A.
Attn. to Mrs. A. Aguirre Larrañaga
Santiago Auzoa, 1
E 20750 ZUMAIA (GUIPUZCOA)
Spain

Gorinchem, the 19th of June 2014

Concern: Your reference : 448/0046
 Our reference : 92628

Dear Mrs. Aguirre Larrañaga,

Herewith we send you the certificates of your ordernumber mentioned above:

Description	Quantity	Length	Heatno.
Bulbflat 340x15 Grade A+LR	6	10000	6V81315
Bulbflat 340x14 Grade A+LR	8	12000	265936
Bulbflat 320x14 Grade A+LR	7	12000	74969
Bulbflat 320x12 Grade A+LR	1	12000	73458
Bulbflat 300x12 Grade A+LR	3	12000	269234
Bulbflat 260x12 Grade A+LR	24	12000	73458

Stigterstaal B.V.
Avelingen-Oost 5
www.stigterstaal.nl

P.O. Box 72
4200 AB Gorinchem
The Netherlands

phone: +31(0)183 - 633 788
fax: +31(0)183 - 633 427
e-mail: sales@stigterstaal.nl

IBAN: NL42INGB0661360202
BIC: INGBNL2A

VAT no.: NL.00.46.41.590.B.02
K.v.K./Ch.o.c.: 23042082



Any quotations, offers and agreements relating to goods to be delivered and/or services to be provided by us shall be subject to the Terms of Sale and Delivery of the wholesale trade association Staalfederatie Nederland which were filed with the Chamber of Commerce under number V40409040. A copy of these Terms may be downloaded from www.staalfederatie.nl and/or will be sent to you free of charge upon request. Any other terms and conditions or different technical standards are expressly rejected.



Description	Quantity	Length	Heatno.
Bulbflat 240x12 Grade A+LR	31	12000	96842
Bulbflat 240x11 Grade A+LR	1	12000	95301
Bulbflat 240x10 Grade A+LR	3	12000	135033
Bulbflat 220x10 Grade A+LR	52	12000	74130 75637
Bulbflat 200x10 Grade A+LR	67	12000	134897
Bulbflat 200x9 Grade A+LR	5 70	12000 12000 12000	135092 73456 74130
Bulbflat 300x12 GLA	2	12000	522756
Bulbflat 260x12 GLA	6	12000	268575

We hope to have been of service to you.

Yours sincerely,

STIGTERSTAAL B.V.

Enclosures.



Corus UK Limited
Corus Special Profiles
P.O. Box 1,
Carlisle, Saltburn,
Teesside, TS13 4ET.
Telephone: 01287 640212
Fax: 01287 643467

INSPECTION CERTIFICATE

In Accordance with EN10204 3.2

Customer

A6 | Management System



Inspection
LLOYDS REGISTER EMBA



Corus Ref. No.

587623E/ 1

Customers Order No.

502500

Specification/Product	Price	Quantity	Unit	Value
...	...	...	...	...

LLOYDS 2008 GRADE A

BULB FLATS 340MM X 15 MM
As Rolled.

AG | Works Order/Item No.

587623/ 1

Rolling No. K18A

[illegible]

This certificate is issued under the arrangements authorised by Lloyd's Register EMEA in accordance with the requirements of the Materials Quality Scheme and certificate number MQS032

On behalf of Corus UK Limited, the manufacturer.
These results are certified by Corus UK Limited and comply
with the requirements of the Product Description.

A. Young, Test House Manager, Treesside

All original Inspection Certificates issued by Corus UK Limited will contain either an embossed seal, or be impregnated with a Corus UK Limited watermarked logo, or a combination of both. Any recipient of a copy Corus UK Limited Inspection Certificate without either the seal or watermarking should ensure from the supplier that it is a true and accurate reproduction of the original.

A5
H093c

11456



HOESCH
SPUNDWAND UND PROFIL

Ein Unternehmen der Salzgitter Gruppe

Alte Radstraße 27 D-44147 Dortmund

LLOYD'S REGISTER EMEA

ORIGINAL



INSPECTION REPORT,
ACCORDING TO DIN EN 10204 / 3.2

Zeugnis-Nr.: 24395 ORDNUNGS-NR.:
Certificate no.: CERTIFICATE NO
Zeugnis-Seite: 1 VON/OF 1 ENDE/FINAL
Page no.:

Dortmund, 17.07.08

TEST 3-FACH

Test-Nr. Order no. H 3.106.668	Lieferwerk Supplier UNION	Durchwahl, Ruf-Nr. Tel. no. 185-6178	Werksauftrags-Nr. Worksorder no. 35-310145-00	
Erzeugnis/Produkt Lieferbedingungen/Specifications STABSTAHL DIN EN 10067	Gesamt-Masse kg/Total mass Gesamt-Stückzahl/Total pieces 47040 70		Teil-Nr./Part no. 1 GANZ	
Stufe/Quality Lieferbedingungen/Specifications GRADE A LR	unbehandelt/ as rolled			
Pos. Item	Stück Quantity	Abmessungen des Erzeugnisses, Dimensions of product mm.	Masse kg Mass	Schmelzen-Nr. Heat no.
1	35	WF 340/14	21630	265936
2	35	WF 370/15	25410	266172
		12000 12000		02699 02700
			PROBEN-NR SAMPLE NO	
			2 = DFC	

Chemische Zusammensetzung in %, gemäß Herstellerangabe / Chemical composition %, acc. to manufacturer statement												Form/Type
Schmelzen-Nr. Heat no.	K	C	SI	MN	P	S	AL	CU	CR	NI	MO	
265936		0,11	0,21	0,87	0,014	0,005	0,039	0,248	0,107	0,125	0,021	
266172		0,10	0,21	0,84	0,013	0,002	0,045	0,160	0,072	0,104	0,020	

L = Logo/Direction

Mechanische Eigenschaften/Mechanical properties													
PROBEN- SAMPLE NR/NO	L	Streckgr. Yield stress	Zugfestigk. Tensile strength	Dehnung (A) Elongation		Einsechn. Red of Area	Kerbschlagprüfung Impact test						
				L	%		Form/Type	L Temp	1	2	3	Ø	
02699	L	380	492	A5	32.5								
02700	L	336	470	A5	35.5								



WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MADE BY THE EAF PROCESS APPROVED BY AND IN ACCORDANCE WITH THE RULES OF LLOYD'S REGISTER EMEA FOR GRAD A STEEL AND IS THAT WHICH HAS BEEN TESTED IN THE PRESENCE OF THE SOCIETY'S REPRESENTATIVE WITH SATISFACTORY RESULTS.

HSP Q
ABNAHME

SURVEYOR TO LLOYD'S REGISTER EMEA

[Signature]

AHRENFELD

DIESER BELEG WURDE MASCHINELL ERSTELLT



TATA STEEL UK LIMITED A01
P.O. Box 1,
Carlin How, Saltburn,
Teesside, TS13 4ET.
Telephone: 01287 640212
Fax: 01287 643467

INSPECTION CERTIFICATE

A02

PAGE 1 & LAST COPIES 6

Date	5/ 3/14	Z02
Cert No.	SKIN/14/00075176/1	
A03		

In Accordance with EN10204 3.2
Product manufactured under a Management System approved to ISO 9001

Customer STIGTERSTAAL B.V. AVELINGEN-OOST 5 4202 MN GORINCHEM THE NETHERLANDS	A06	CSI: 1506935		Tata Steel Ref. No.	593333E/ 2	A08	Works Order/Item No.	593333/ 2	A08
				Customers Order No.	12080A		A07		
			Inspection LLOYDS REGISTER EMEA & D.N.V.	A11	Specification/Product DNV2011/LLOYDS2012 GRADE A			B01/B02	
			BULB FLATS 320MM X 14 MM As Rolled.			B09-B12			
Rolling No. K64									

106/A10

B06	B08	B13	B07	B07	C11	C12	C13	Charpy Impact	C40	Steelmaking Process: B.O.S.																C70	
Item/Mark Numbers	Quantity	Length	Cast/Heat No	Piece No.	Yield Stress Re	Tensile Strength Rm	Elong% A Lo=			ANALYSIS %																C71-92	
					MPa		200	Units		C	Si	Mn	P	S												Mn/C	CEV
			Specification	Min	235	400	19			.000	.000		.000	.000													
				Max		520				.210	.350		.040	.040													.400
21	12.000m		74969	93065 to	285	443	35			.14	.207	.73	.018	.013												5.21	.26
35	12.000m		75640	93060 to	304	440	34			.10	.234	1.00	.019	.010												10.00	.27
			93064																								
56	Pieces in	Total																									

We hereby certify that the material has been made by an approved process and has been satisfactorily tested in accordance with DNV Rules for Classification. This certificate is issued under the arrangements authorised by Lloyd's Register EMEA in accordance with the requirements of the Materials Quality Scheme and certificate number MQS032

On behalf of Tata Steel UK Limited, the manufacturer.
These results are certified by Tata Steel UK Limited and comply with the requirements of the Product Description. Z01

L. Sotheby, Test House Manager, Teesside

Z02



TATA STEEL UK LIMITED A01
P.O. Box 1,
Carlisle How, Saltburn,
Teesside, TS13 4ET.
Telephone: 01287 840212
Fax: 01287 843467

INSPECTION CERTIFICATE

A02

PAGE 1 & LAST COPIES 6

Date	10/ 2/14	Z02
Cert No.	SKIN/14/00074956/1	A03

In Accordance with EN10204 3.2
Product manufactured under a Management System approved to ISO 9001

Customer STIGTERSTAAL B.V. AELINGEN-OOST 5 4202 MN GORINCHEM THE NETHERLANDS	CSI: 1506935	 Lloyd's Register MATERIALS QUALITY SCHEME	Tata Steel Ref. No.	593323E/ 7	Works Order/Item No.	593323/ 7
	Inspection LLOYDS REGISTER EMEA & D.N.V.		Customers Order No.	12080		
			Specification/Product	DNV2011/LLOYDS2012 GRADE A		
				BULB FLATS 320 X 12 MM As Rolled.		

Rolling No. K63

16/A10

B06	B08	B13	B07	B07	C11	C12	C18	Charpy Impact	C40	Steelmaking Process: B.O.S.															C70	
om/Mark	Quantity	Length	Cast/Heat No	Piece No.	Yield Stress Re	Tensile Strength Rm	Elong% A			ANALYSIS %															C71-92	
Numbers					MPa		200	Units		C41	C43	C	Si	Mn	P	S									Mn/C	CEV
			Specification	Min	235	400	19					.000	.100		.000	.000										
				Max		520						.230	.500		.035	.035										.400
	6	12.000m	72254	38748	307	457	32					.15	.223	.73	.013	.010									4.86	.27
	64		73458	38749 to 38759	303	439	33					.14	.199	.72	.008	.012									5.14	.26
70	Pieces in Total																									

13 FEB 2014

NEWCASTLE

we hereby certify that the material has been made by an approved process and has been satisfactorily tested in accordance with DNV Rules for Classification. This certificate is issued under the arrangements authorised by Lloyd's Register EMEA in accordance with the requirements of the Materials Quality Scheme and certificate number MQS032

On behalf of Tata Steel UK Limited, the manufacturer.
These results are certified by Tata Steel UK Limited and comply with the requirements of the Product Description. Z01

L. Sotheby, Test House Manager, Teesside

Z02

13375


HOESCH
SPUNDWAND UND PROFIL

ORIGINAL

Ein Unternehmen der Selzgitter Gruppe

Alte Radstraße 27 D-44147 Dortmund

LLOYD'S REGISTER EMEA
INSPECTION REPORT,
ACCORDING TO DIN EN 10204 / 3.2

Zeugnis-Nr.: 24435 **ORDNUNGS-NR.:**
Certificate no.: **CERTIFICATE NO**
Zeugnis-Seite: 1 **VON/OF 1 ENDE/FINAL**
Page no.:

Dortmund, 15.07.10

TEST 3-FACH

Best-Nr. Order no.	3.106.824	Lieferwert Supplier	UNION	Durchwahl, Ruf-Nr. Tel.no.	185-6178	Werkauftrags-Nr. Workorder no.	35-311116-00	Gesamt-Masse kg/Total mass Gesamt-Stückzahl/Total pieces	88632 157	Teil-Nr./Part no.	1 TEIL
Erzeugnis/Produkt Lieferbedingungen/Specifications	STABSTAHL DIN EN 10067										
Eüte/Quality Lieferbedingungen/Specifications	GRADE A LR			unbehandelt/ as rolled							
Pos. Item	Stück Quantity	Abmessungen des Erzeugnisses, Dimensions of product mm.			Masse kg Mass	Schmelzen-Nr. Heat no.	PROBEN-NR SAMPLE NO				
7	16 51 40	WF 280/11			16000	8576 27336 21440 31280	269227 269235 269238 269234	02816 02817 02818 02819	2 = DFC		
8	50	WF 300/12			16000						

Chemische Zusammensetzung in %, gemäß Herstellerangabe / Chemical composition %, acc. to manufacturer statement													Form/Type
Schmelzen-Nr. Heat no.	K	C	SI	MN	P	S	AL	CU	CR	NI	MO		
269227		0,10	0,19	0,84	0,013	0,004	0,036	0,120	0,069	0,070	0,018		
269235		0,12	0,20	0,86	0,013	0,004	0,047	0,130	0,066	0,080	0,019		
269238		0,11	0,23	0,91	0,015	0,001	0,045	0,147	0,126	0,100	0,023		
269234		0,10	0,21	0,87	0,015	0,003	0,034	0,137	0,057	0,007	0,015		

Mechanische Eigenschaften / Mechanical properties													L = Logo/Direction
PROBEN- SAMPLE NR/NO	L	Streckgr. Yield stress N/MM ²	Zugfestigk. Tensile strength	Dehnung (A) Elongation L %	Einschn. Red of Area	Kerbschlagprüfung Impact test Form Type	L Temp	1	2	3	Ø		
02816	L	423	473	A5 34.5									
02817	L	390	477	A5 31.0									
02818	L	403	489	A5 32.0									
02819	L	336	480	A5 37.5									

Lloyd's Register EMEA
T. Stanojev
Business Centre Central
Dortmund
Lloyd's Register

HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MADE BY THE EAF PROCESS
PROVED BY AND IN ACCORDANCE WITH THE RULES OF LLOYD'S REGISTER EMEA FOR GRAD A
FUEL AND IS THAT WHICH HAS BEEN TESTED IN THE PRESENCE OF THE SOCIETY'S REPRESENTATIVE WITH
SATISFACTORY RESULTS.

HSP Q
ABNAHME

SURVEYOR TO LLOYD'S REGISTER EMEA

AHRENFELD

DIESER BELEG WURDE MASCHINELL ERSTELLT



TATA STEEL UK LIMITED A01
P.O. Box 1,
Carlin How, Saltburn,
Teesside, TS13 4ET.
Telephone: 01287 640212
Fax: 01287 643467

INSPECTION CERTIFICATE

A02

PAGE 1 & LAST COPIES 4

Date	11/ 3/14	Z02
Cert No.	SKIN/14/00075216/1	
	A03	

In Accordance with EN10204 3.2
Product manufactured under a Management System approved to ISO 9001

Customer STIGTERSTAAL B.V. AVELINGEN-OOST 5 4202 MN GORINCHEM THE NETHERLANDS	A08	CSI: 1506935		Tata Steel Ref. No.	593323E/ 4	A08	Works Order/Item No.	593323/ 4	A08	
				Customers Order No.	12080					A07
				Specification/Product	LLOYDS 2012 GRADE A					B01/B02
	Inspection LLOYDS REGISTER EMEA			A11	BULB FLATS 260MM X 12 MM As Rolled.					B09-B12
Rolling No. K84										

B08/A10

B06	B08	B13	B07	B07	C11	C12	C13	Charpy Impact	C40	Steelmaking Process: B.O.S.																		C70
Item/Mark Numbers	Quantity	Length	Cast/Heat No	Piece No.	Yield Stress Re	Tensile Strength Rm	Elong% A			ANALYSIS %																		C71-92
					MPa		200																					
			Specification	Min Max				Units		C	Si	Mn	P	S														
					235	400	17			.000	.100		.000	.000														
						520				.230	.500		.035	.035														.400
71	12.000m		73458	93500 to 93512	288	440	33			.14	.199	.72	.008	.012														5.14 .26
71	Pieces in Total																											

TEST PER 50T PER CAST/GAUGE
his certificate is issued under the arrangements authorised by Lloyd's Register EMEA in
ccordance with the requirements of the Materials Quality Scheme and certificate
umber MQS032

On behalf of Tata Steel UK Limited, the manufacturer.
These results are certified by Tata Steel UK Limited and comply
with the requirements of the Product Description. Z01

L. Sotheby

L. Sotheby, Test House Manager, Teesside

Z02



1022

S.C. LAMINORUL S.A. BRAILA - ROMANIA
INSPECTION CERTIFICATE ACCORDING TO: EN10204/2004/3.2
No. 1927/23.07.2012

Customer

Contract: 9000/397/28.09.2010; Specification no : 33

Product: HOT ROLLED BULB FLATS

Steel grade : GRADE A

Standards : EN 10067; EN 10067/C91; L.R.

Dispatched by truck: B 28 VYB / HD 08 ZWT

Product and dispatch :

Pos	Heat no.	Size (mm)	Length (mm)	Pcs / bundle	Weight (kg)	Batch	Nr. of Pieces/ bundles	Remarks
1	96842	240 X 12	12000(0/+100)	3	8429,76	131	8	P521498,P521496,P521497
2	96842	240 X 12	12000(0/+100)	4	11239,68	131	8	P521506,P521510,P521504,P521501
3	96843	240 X 12	12000(0/+100)	1	2809,92	132	8	P521516
TOTAL WEIGHT					22479,36			

Chemical analysis(%)

Pos	C	Mn	Si	S	P	Cr	Ni	Cu	Mo	Ti	V	Al	N	Nb	Sn	Cev
1	0.16	0.69	0.21	0.020	0.018	0.17	0.089	0.23	0.022	0.0011	0.004	0.0043	0.0089		0.021	0.275
2	0.16	0.69	0.21	0.020	0.018	0.17	0.089	0.23	0.022	0.0011	0.004	0.0043	0.0089		0.021	0.275
3	0.16	0.83	0.25	0.027	0.020	0.16	0.092	0.25	0.020	0.0007	0.005	0.0035	0.0078		0.022	0.35

Physical properties:

Pos.	Yield point N / mm ²	Tensile strength N / mm ²	Elongation %	Reduction of area %	Impact test KV J	Probe no./date	Tensile test Direction of test
1	330	497	32			131/24.05.2012	L
2	330	497	32			131/24.05.2012	L
3	355	505	32			132/24.05.2012	L

Delivery condition: AS ROLLED (AR); Dimensions and tolerances: EN 10067; EN10067/C91; Steelmaking process: EAF, CONTINUOUSLY CASTING
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the requirement specified in the order with satisfactory results.

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the RULES of LLOYD'S REGISTER.

We herewith declare that hard stamping and marking or stenciling of steel material were carried out as per order specification and applicable rule of standard requirements. Quality surface acc to EN 10163-3, class of quality "C"

DIRECTOR,

Dvoryanichkov Vladimir



THIRD PART INSPECTION
SIGNATURE / INSPECTOR'S STAMP
CONTRACT No.: GTZ 1200175/17.07.2012

QUALITY DEPARTMENT,
Florina Zaharia

MECHANICAL TESTS
ONLY WITNESSED.
MANUFACTURER'S
CERTIFICATE REVIEW



102b.



S.C. LAMINORUL S.A. BRAILA – ROMANIA
INSPECTION CERTIFICATE ACCORDING TO: EN10204/2004/3.2
No.1916/23.07.2012

Customer:
Contract: 9000/397/28.09.2010; Specification no : 33
Product: HOT ROLLED BULB FLATS
Steel grade : GRADE A
Standards : EN 10067;EN 10067/C91; L.R.
Dispatched:by truck: SB 04 TEV / SB 88 TEV



Product and dispatch :

Po s	Heat no.	Size (mm)	Length (mm)	Pcs / bundle	Weight (kg)	Batch	Nr.of. Pieces/ bundles	Remarks
1	95301	240 X 11	12000(0/+100)	4	11832.48	6	9	P221363.P221359.P221390.P221386
2	95301	240 X 11	12000(0/+100)	3	8874.36	6	9	P221391.P221394.P221388
3	95301	240 X 11	12000(0/+100)	1	2300.76	6	7	P221396/1
TOTAL WEIGHT					23007.6			

Chemical analysis(%)

Po s	C	Mn	Si	S	P	Cr	Ni	Cu	Mo	Ti	V	Al	N	Nb	Sn	Cev
1	0.16	0.65	0.24	0.016	0.008	0.13	0.17	0.21	0.04	0.001	0.01	0.0027	0.0035		0.021	0.268
2	0.16	0.65	0.24	0.016	0.008	0.13	0.17	0.21	0.04	0.001	0.01	0.0037	0.0095		0.021	0.268
3	0.16	0.65	0.24	0.016	0.008	0.13	0.17	0.21	0.04	0.001	0.01	0.0037	0.0095		0.021	0.268

Physical properties:

Pos.	Yield point N / mm ²	Tensile strength N / mm ²	Elongation %	Reducti on of area %	Impact test KV J	Probe no /date	Tensile test Direction of test
1	344	477	31			6/21.02.2012	L
2	344	477	31			6/21.02.2012	L
3	344	477	31			6/21.02.2012	L

Delivery condition: AS ROLLED (AR); Dimensions and tolerances: EN 10067;EN10067/C91;Steel making process: EAF, CONTINUOUSLY CASTING
We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the requirement specified in the order with satisfactory results.

We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the RULES OF LLOYD'S REGISTER.

We herewith declare that hard stamping and marking or stenciling of steel material were carried out as per order, specification and applicable rule of standard requirements. Quality surface acc to EN 10163:3, class of quality "C"

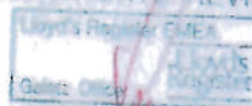
DIRECTOR,
Dvoryanchikov Vladimir



QUALITY DEPARTMENT,
Florina Zaharia

THIRD PARTY INSPECTION
SIGNATURE / INSPECTOR'S STAMP
CONTRACT No.:GTZ 1200175/17.07.2012

MECHANICAL TESTS
ONLY WITNESSED.
MANUFACTURER'S
CERTIFICATE REVIEW



MILL TEST CERTIFICATE

DATE: 23.12.2013

CERT. NO: 13-2134-8

In Accordance with EN 10204 3.2

Condition of Delivery: As Rolled



Project No.:

OZ 13-2134 LOT 3

Customer Reference No.:

Inspection Company/ Class Society Job No: LRIST.1380229

Specification							Chemical Requirements of Product (%)															Mechanical Requirements			Impact Requirement				
Standard	Quality	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Ceq	Yield Strength (N/mm²)	Tensile Strength (N/mm²)	Elongation (%)	Test Specimen (mm)			Temperature °C					
																					10x10	10x7,5	10x5						
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*					
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*				

Product Information							Chemical Composition of Product (%)															Mechanical Test Value			Impact Value (ISO-V)						
Item	Size (mm)	Quality	Heat No	Total Weight (kg)	Length (m)	Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Ceq	Yield Strength (N/mm²)	Tensile Strength (N/mm²)	Elongation (%)	#1	#2	#3	Average	Test Specimen (mm)	Temp °C	
																															(Joules)
1	EN10067 BF 200x9	GRADE A	135092	40.557	12	EAF	,18	,19	,64	,009	,018	,06	,09	,21	,001	,001	,016	,001	,001	70	0,32	310	480	33	*	*	*	*	*	*	*
2	EN10067 BF 200x10	GRADE A	134897	50.511	12	EAF	,19	,20	,74	,011	,016	,08	,09	,18	,001	,001	,018	,001	,001	71	0,36	297	495	37	*	*	*	*	*	*	*
3	EN10067 BF 220x10	GRADE A	135367	51.916	12	EAF	,19	,17	,77	,016	,012	,08	,10	,25	,001	,002	,020	,001	,001	71	0,36	325	506	32	*	*	*	*	*	*	*
4	EN10067 BF 220x10	GRADE A	135044		12	EAF	,20	,18	,60	,008	,013	,06	,09	,19	,001	,001	,018	,001	,001	79	0,33	309	479	34	*	*	*	*	*	*	*
5	EN10067 BF 220x10	GRADE A	135045	55.080	12	EAF	,18	,17	,58	,009	,014	,06	,10	,18	,001	,001	,018	,001	,001	76	0,31	300	480	36	*	*	*	*	*	*	*
6	EN10067 BF 240x10	GRADE A	135034		12	EAF	,18	,19	,62	,012	,016	,11	,09	,21	,002	,001	,022	,001	,001	76	0,33	311	486	35	*	*	*	*	*	*	*
7	EN10067 BF 240x10	GRADE A	135033		12	EAF	,18	,16	,58	,012	,017	,07	,11	,24	,001	,001	,017	,001	,001	76	0,31	330	496	32	*	*	*	*	*	*	*
																					</										

We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the LLOYD'S REGISTER rules with satisfactory results.

Tensile test as per EN 6892-1
Bending Test: quer D=2s < 180°

Impact Test as per ISO 148-1

Lloyd's Register Gözetim Ltd. Şti.
Istanbul Office

☐ Reviewed
☒ Witnessed



Lloyd's Register

COMPANY : LLOYD'S REGISTER
SURVEYOR : KENAN GORCANER

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.

QUALITY ASSURANCE MANAGER
ERTUĞRUL TURFAN



TATA STEEL UK LIMITED A01
P.O. Box 1,
Carlisle, Saltburn,
Teesside, TS13 4ET.
Telephone: 01287 840212
Fax: 01287 843467

INSPECTION CERTIFICATE

A02

Date	17/ 2/14	Z02
Cert No.	SKIN/14/00075049/1	A03

In Accordance with EN10204 3.2
Product manufactured under a Management System approved to ISO 9001

Customer STIGTERSTAAL B.V. AVELINGEN-OOST 5 4202 MN GORINCHEM THE NETHERLANDS	A08	CSI: 1506935	 Inspection LLOYDS REGISTER EMEA	A11	Tata Steel Ref. No.	593323E/ 3	A08	Works Order/Item No.	593323/ 3	A08
					Customers Order No.	12080				A07
					Specification/Product	LLOYDS 2012 GRADE A				B01/B02
					BULB FLATS 220MM X 10 MM As Rolled.				B09-B12	
Rolling No. K98										

18/A10

B06	B08	B13	B07	B07	C11	C12	C13	Charpy Impact	C40	Steelmaking Process: B.O.S.															C70	
em/Mark	Quantity	Length	Cast/Heat No	Piece No.	Yield Stress Re	Tensile Strength Rm	Elong% A Lo=			ANALYSIS %															C71-92	
					MPa		200	Units	C41 C43	C	Si	Mn	P	S											Mn/C	CEV
			Specification	Min Max	235	400	16			.000	.100		.000	.000												.400
	16	12.000m	71574	91217 to 91219	285	447	31			.14	.200	.71	.015	.011											5.07	.26
	149	12.000m	74130	91220 to 91241	282	449	33			.14	.195	.76	.014	.019											5.42	.27
	21	12.000m	74130	91243 to 91245	282	449	33			.14	.195	.76	.014	.019											5.42	.27
	186	Pieces in Total																								

TEST PER 50T PER CAST/GAUGE
This certificate is issued under the arrangements authorised by Lloyd's Register EMEA in accordance with the requirements of the Materials Quality Scheme and certificate number MQS032

On behalf of Tata Steel UK Limited, the manufacturer.
These results are certified by Tata Steel UK Limited and comply with the requirements of the Product Description. Z01



L. Sotheby, Test House Manager, Teesside

Z02



A02

Date 19/ 6/14 202

Cert No. SKIN/14/00075944/1 A03

Product manufactured under a Management System approved to ISO 9001

Customer STIGTERSTAAL B.V. AVELINGEN-OOST 5 4202 MN GORINCHEM THE NETHERLANDS	A06	CSI : 1506935		Tata Steel Ref. No. 593323E/ 15	A08	Works Order/Item No. 593323/ 15	A09
		Inspection LLOYDS REGISTER EMEA		Customers Order No. 12080		Specification/Product LLOYDS REG. EMEA 2013 GRADE A	
		Inspection LLOYDS REGISTER EMEA	A11	<u>BULB FLATS 220MM X 10</u> MM As Rolled.		Rolling No. K99	

B06/A10

[illegible]

1 TEST PER 50T PER CAST/GAUGE

WORKS REPLACE

This certificate is issued under the arrangements authorised by Lloyd's Register EMEA in accordance with the requirements of the Materials Quality Scheme for Scheme No MQS032

On behalf of Tate Steel UK Limited, the manufacturer.

These results are certified by Tata Steel UK Limited and comply with the requirements of the Product Description. 701

791

NP

N. Dodds, Test House Manager, Teesside

202

All original Inspection Certificates issued by Tata Steel UK Limited will contain either an embossed stamp, or be impregnated with a Tata Steel UK Limited watermarked logo, or a combination of both. Any recipient of a copy of a Tata Steel UK Limited Inspection Certificate without either the stamp or watermarking should ensure from the supplier that it is a true and accurate reproduction of the original. Company Registration Number 02280000



HOESCH
SPUNDWAND UND PROFIL

Ein Unternehmen der Salzgitter Gruppe

Alte Radstraße 27 D-44147 Dortmund

GERMANISCHER LLOYD

ORIGINAL



**INSPECTION REPORT,
ACCORDING TO DIN EN 10204 / 3.2**

Zeugnis-Nr. 59676 BESCHEINIGUNGS-NR.:
Certificate no. 1 CERTIFICATE NO
Zeugnis-Seite 1 VON/OF 2
Page no.

Dortmund, 23.03.06

TEST 3-FACH

Best-Nr. C	K004123	Lieferwerk Supplier	Durchwahl, Ruf-Nr. Tel no	Werksauftrags-Nr. Workorder no		
Erzeugnis/Produkt Lieferbedingungen/Specifications		STABSTAHL DIN EN 10067		Gesamt-Masse kg/Total mass Gesamt-Stückzahl/Total pieces		36957 70
Güte/Quality Lieferbedingungen/Specifications		GRAD A GL		Teil-Nr./Part no		GANZ

Pos Item	Stück Quantity	Abmessungen des Erzeugnisses, Dimensions of product mm	Masse kg Mass	Schmelzen-Nr. Heat no	PROBEN-NR SAMPLE NO	
2	20	WF 300/11	12000	522759	05037	5 = IPS
3	20	WF 300/12	12000	522756	05038	

Chemische Zusammensetzung in %, gemäß Herstellerangabe / Chemical composition %, acc. to manufacturer statement													Form/Type
Schmelzen-Nr. Heat no	K	C	SI	MN	P	S	AL	CU	CR	NI	MO		
522759		0,12	0,23	0,86	0,015	0,006	0,031	0,020	0,020	0,010	0,004		
522756		0,12	0,22	0,86	0,020	0,005	0,043	0,040	0,020	0,020	0,004		

Mechanische Eigenschaften/Mechanical properties														L = Lage/Direction
PROBEN- SAMPLE NR/NO	L	Streckgr. Yield stress N/MM2	Zugfestigk. Tensile strength	Dehnung (A) Elongation L %	Einschn. Red of Area	Kerbschlagprüfung Impact test Form Type	L Temp	1	2	3	Ø			
05037	L	357	430	A5 33.0										
05038	L	326	435	A5 35.5										

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MADE BY THE LDAC-PROCESS AND IN ACCORDANCE WITH THE RULES OF GERMANISCHEN LLOYD FOR GRAD A STEEL. FURTHER MORE WE CERTIFY THE CORRECTNESS OF THE MENTIONED HEAT NUMBERS AND ANALYSES.

FORSCHUNG UND QUALITAETSKONTROLLE
ABNAHME

GEPRUEFT VOM BESICHTIGER DES GERMANISCHEN LLOYD



DIESER BELEG WURDE MASCHINELL ERSTELLT

3K



HOESCH
SPUNDWAND UND PROFIL

Ein Unternehmen der Salzgitter Gruppe

Alte Redstraße 27 D-44147 Dortmund

GERMANISCHER LLOYD

ORIGINAL



**INSPECTION REPORT,
ACCORDING TO DIN EN 10204 / 3.2**

Zeugnis-Nr.: 50118 ORDUNGS-NR.: 41508 D
Certificate no.: CERTIFICATE NO
Zeugnis-Seite: 1 VON/OF 3
Page no.: 3

Dortmund, 27.03.08

TEST 3-FAC

B. Order no.	K002195	Lieferwerk Supplier	Durchwahl, Ruf-Nr. Tel. no.	Werksauftrags-Nr. Workorder no.		
			185-6178	35-309866-00		
Erzeugnis/Produkt Lieferbedingungen/Specifications	STABSTAHL DIN EN 10067			Gesamt-Masse kg/Total mass Gesamt-Stückzahl/Total pieces	137531 282	Teil-Nr./Part no. GAN

Güte/Quality Lieferbedingungen/Specifications	GRAD A GL	unbehandelt/ as rolled				
Pos. Item	Stück Quantity	Abmessungen des Erzeugnisses, Dimensions of product mm.	Masse kg Mass	Schmelzen-Nr. Heat no.	PROBEN-NR SAMPLE NO	
1	20	WF 260/10	16000	9056	267991	2 = DFC
2	4	WF 260/10	16000	1811	267991	
	18			8151	268574	
5	10	WF 260/12	16000	5184	268575	
6	20	WF 260/12	16000	10368	268575	

Chemische Zusammensetzung in %, gemäß Herstellerangabe / Chemical composition %, acc. to manufacturer statement

Schmelzen-Nr. Heat no.	K	C	SI	MN	P	S	AL	CU	CR	NI	MO			Form/Type
267991		0,10	0,22	0,84	0,018	0,003	0,041	0,190	0,119	0,139	0,030			
268574		0,10	0,23	0,84	0,012	0,003	0,032	0,178	0,113	0,109	0,021			
268575		0,10	0,21	0,83	0,010	0,005	0,038	0,179	0,079	0,105	0,018			

Mechanische Eigenschaften/Mechanical properties

PROBEN- SAMPLE NR/NO	L	Streckgr. Yield stress N/MM2	Zugfestigk. Tensile strength	Dehnung (A) Elongation %	Einschn. Red of Area	Kerbschlagprüfung Impact test Form Type	L Temp	1	2	3	Ø
05578	L	377	487	A5	31.5						
05579	L	379	492	A5	34.0						
05580	L	345	478	A5	35.0						

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MADE BY THE EAF-PROCESS AND
IN ACCORDANCE WITH THE RULES OF GERMANISCHEN LLOYD FOR GRAD A STEEL.
FURTHER MORE WE CERTIFY THE CORRECTNESS OF THE MENTIONED HEAT NUMBERS AND ANALYSES.

HSP Q
ABNAHME

SURVEYOR TO GERMANISCHER LLOYD



1972 Ralph Luplow

AHRENFELD

DIESER BELEG WURDE MASCHINELL ERSTELLT

UD-Form RME /

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 27.05.2020
SERTİFİKA NO/Cert. No : 20-1990
SAYFA NO/Page No : 1 / 3
DNVGL No : N141JWSK

Müşteri/Customer: TRADETECH METAL SL PSO RUISENORES N 14 3C ZARAGOZA, SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 20-2048 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C	
																					10x10	10x7,5	10x5		
																					ISO-V (Joule)				
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	*	*	*	620	*	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	22	34	29	23	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.
1	EN 10067:1996 BF 100 x 6	VL A36	2009980	22760	12	Notes	,14	,21	,90	,009	,012	,14	,09	,28	,031	,033	,029	,002	,001	75	0,35	435	551	25	50	62	44	52	10x5	0
2	EN 10067:1996 BF 120 x 8	VL A36	2009400	770	12	Notes	,14	,21	,94	,009	,009	,13	,11	,30	,027	,037	,037	,003	,001	79	0,37	425	548	25	82	99	100	94	10x7,5	0
3	EN 10067:1996 BF 140 x 9	VL A36	2010210	8570	12	Notes	,15	,21	1,01	,008	,008	,08	,08	,19	,029	,035	,027	,002	,001	78	0,37	448	574	24	57	61	51	56	10x7,5	0
4	EN 10067:1996 BF 140 x 9	VL A36	2010220	3285	12	Notes	,16	,22	1,00	,007	,007	,09	,08	,20	,039	,035	,028	,003	,001	75	0,37	435	560	24	63	72	89	75	10x7,5	0
5	EN 10067:1996 BF 140 x 9	VL A36	2010230	16425	12	Notes	,15	,22	,99	,009	,006	,09	,08	,20	,030	,033	,029	,002	,001	76	0,37	429	555	25	94	90	89	91	10x7,5	0
6	EN 10067:1996 BF 140 x 9	VL A36	194589	3000	12	Notes	,14	,23	,98	,011	,008	,07	,08	,25	,027	,032	,022	,003	,001	74	0,35	394	545	25	96	54	78	76	10x7,5	0
7	EN 10067:1996 BF 160 x 7	VL A36	2010230	14570	12	Notes	,14	,21	1,00	,008	,004	,10	,09	,21	,029	,033	,030	,003	,001	76	0,36	427	556	25	33	37	41	37	10x5	0
8	EN 10067:1996 BF 160 x 9	VL A36	2010264	5360	12	Notes	,13	,23	1,00	,011	,008	,14	,16	,22	,025	,032	,042	,004	,001	76	0,36	419	553	25	52	63	60	58	10x7,5	0
9	EN 10067:1996 BF 160 x 9	VL A36	2010260	10730	12	Notes	,14	,22	1,02	,008	,006	,14	,15	,23	,026	,032	,041	,004	,001	76	0,38	420	555	25	55	56	44	52	10x7,5	0
10	EN 10067:1996 BF 180 x 8	VL A36	2010250	27530	12	Notes	,14	,21	,99	,008	,005	,11	,10	,21	,034	,034	,033	,002	,001	74	0,37	440	560	25	59	62	44	55	10x7,5	0
11	EN 10067:1996 BF 200 x 12	VL A36	2010200	5030	12	Notes	,16	,20	1,00	,007	,004	,08	,08	,19	,026	,034	,025	,002	,001	75	0,37	418	555	24	100	97	96	98	10x10	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2019-07) rules with satisfactory results.



KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL

☒ Witnessed ☐ Reviewed
And found to comply with
DNVGL-24
Date: 2020.05.27
Sign: [Signature]
CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABİYİK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

Bozköy Köyü 13. Cadde No:4
35800 Aliaga - IZMIR / TURKEY
Tel : 0090 232 625 15 15
Fax : 0090 232 625 20 87

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 27.05.2020
SERTİFİKA NO/Cert. No : 20-1990
SAYFA NO/Page No : 2 / 3
DNVGL No : N141JWSK

Müşteri/ Customer:
TRADETECH METAL SL
PSO RUISENORES N 14 3C
ZARAGOZA, SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 20-2048
Project No.

MÜŞTERİ REFERANS NO.
Customer Reference No.

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	*	*	*	620	*	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	22	34	29	23

[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2019-07) rules with satisfactory results

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/ *Impact Test*: ISO 148-1 EĞME TESTİ/ *Bending Test*: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

LEOZKAN®
DEMİR ÇELİK SANAYİ A.Ş.

KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL


☒ Witnessed ☐ Reviewed
 And found to comply with
DNV-GL-R4
 Date: 2020.05.27
 Sign: _____
 DNV-GL

CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 27.05.2020
SERTİFİKA NO/Cert. No : 20-1990
SAYFA NO/Page No : 3 / 3
DNVGL No : N141JWSJ

Müşteri/Customer: TRADETECH METAL SL PSO RUISENORES N 14 3C ZARAGOZA, SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 20-2048 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	24	*	*	*

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm ²)	ÇEKME MUK. Tensile Strength (N/mm ²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NEMUNE Specimen	SIG. Temp.
1	EN 10067:1996 BF 120 x 7	VL A	2010170	9520	12	Notes	,12	,17	,54	,004	,010	,10	,08	,22	,004	,003	,023	,002	,000	77	0,26	324	458	31	*	*	*	*	*	*
2	EN 10067:1996 BF 140 x 7	VL A	2005901	2925	12	Notes	,13	,20	,59	,006	,007	,07	,08	,29	,004	,003	,019	,001	,000	79	0,27	346	471	30	*	*	*	*	*	*
3	EN 10067:1996 BF 140 x 7	VL A	2010160	2925	12	Notes	,15	,17	,53	,007	,012	,10	,08	,21	,003	,002	,023	,001	,000	76	0,28	334	459	30	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2019-07) rules with satisfactory results.

ÖZKAN
DEMİR ÇELİK SANAYİ A.Ş.
KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAIL BURAL

☒ Witnessed ☐ Reviewed
And found to comply with
DNVGL-PU
Date: 26.05.2020
Sign:
DNV-GL

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 26.09.2019
SERTİFİKA NO/Cert. No : 19-3996
SAYFA NO/Page No : 1 / 2
DNVGL No : N141JWS2

Müşteri/Customer: TRADETECH METAL SL PS RUISENORES 14 50006 ZARAGOZA SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2169 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C	
																					10x10	10x7,5	10x5		
																					ISO-V (Joule)				
DNVGL-SHIP	VL A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	*
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	*
																		MEKANİK TEST SONUCU			ÇENTİK TEST SONUCU				

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	SIC. Temp.
1	EN 10067:1996 BF 120 x 6	VL A	190011	1050	12	Notes	,13	,14	,54	,006	,012	,07	,11	,26	,003	,002	,022	,004	,001	75	0,26	332	465	30	*	*	*	*	*	*
2	EN 10067:1996 BF 120 x 8	VL A	190009	220	12	Notes	,12	,16	,54	,008	,007	,08	,10	,27	,002	,001	,017	,003	,000	68	0,26	292	444	30	*	*	*	*	*	*
3	EN 10067:1996 BF 140 x 9	VL A	190903	2570	12	Notes	,13	,19	,54	,009	,008	,08	,08	,23	,002	,001	,017	,004	,000	76	0,26	299	462	30	*	*	*	*	*	*
4	EN 10067:1996 BF 140 x 9	VL A	191794	1140	12	Notes	,14	,21	,53	,023	,018	,10	,11	,28	,003	,001	,015	,003	,000	76	0,28	316	473	30	*	*	*	*	*	*
5	EN 10067:1996 BF 160 x 9	VL A	191738	010	12	Notes	,15	,19	,58	,016	,008	,12	,10	,33	,002	,001	,018	,000	,001	74	0,31	313	430	30	*	*	*	*	*	*
6	EN 10067:1996 BF 180 x 9	VL A	190928	5650	12	Notes	,12	,17	,52	,008	,011	,07	,09	,18	,003	,000	,026	,001	,001	67	0,25	289	443	30	*	*	*	*	*	*
7	EN 10067:1996 BF 200 x 9	VL A	192157BA	2900	12	Notes	,08	,18	,69	,019	,020	,09	,11	,25	,003	,001	,016	,005	,000	74	0,24	311	439	32	*	*	*	*	*	*
8	EN 10067:1996 BF 220 x 10	VL A	190279	640	12	Notes	,12	,19	,55	,008	,010	,09	,09	,33	,003	,002	,015	,001	,000	75	0,26	301	458	30	*	*	*	*	*	*
9	EN 10067:1996 BF 220 x 10	VL A	190963	3555	12	Notes	,14	,20	,54	,009	,010	,06	,10	,23	,001	,000	,022	,001	,001	72	0,27	312	452	30	*	*	*	*	*	*
10	EN 10067:1996 BF 220 x 10	VL A	191052	275	12	Notes	,15	,19	,55	,007	,012	,08	,09	,24	,001	,001	,020	,001	,001	74	0,29	307	468	30	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
KALİTE GÜV. MD. QA&QC Manager
BURÇİN NAİL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes): ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ

MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 26.09.2019
SERTİFİKA NO/Cert. No : 19-3996
SAYFA NO/Page No : 2 / 2
DNVGL No : N141JWS3

Müşteri/Customer: TRADETECH METAL SL PS RUISENORES 14 50006 ZARAGOZA SPAIN	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 19-2169 MÜŞTERİ REFERANS NO. Customer Reference No. :
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	90	0,38	*	630	*	*	*	0	
		Min	*	,10	,90	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	21	34	29	23	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	# 3	ORT. Av.	NUMUNE Specimen	Sic. Temp.
1	EN 10067:1996 BF 120 x 7	VL A36	185222	595	12	Notes	,14	,20	,90	,011	,012	,09	,12	,29	,032	,034	,020	,003	,001	73	0,35	398	541	26	36	32	30	33	10x5	0
2	EN 10067:1996 BF 120 x 7	VL A36	190919	695	12	Notes	,14	,19	,91	,011	,006	,06	,10	,19	,032	,030	,034	,003	,001	71	0,34	370	520	25	44	72	68	61	10x5	0
3	EN 10067:1996 BF 140 x 7	VL A36	192592	6550	12	Notes	,14	,22	,90	,011	,009	,17	,10	,23	,026	,030	,028	,005	,000	78	0,36	402	542	25	40	30	37	36	10x5	0
4	EN 10067:1996 BF 140 x 9	VL A36	190883	714	12	Notes	,12	,17	1,23	,014	,006	,06	,08	,17	,019	,048	,025	,005	,000	74	0,37	435	547	25	166	162	132	153	10x7,5	0
5	EN 10067:1996 BF 140 x 9	VL A36	191777	1856	12	Notes	,16	,22	,97	,015	,010	,08	,10	,33	,033	,033	,019	,003	,000	75	0,38	402	551	24	47	43	53	48	10x7,5	0
6	EN 10067:1996 BF 160 x 7	VL A36	190207	3030	12	Notes	,14	,19	,95	,011	,006	,09	,09	,27	,020	,030	,017	,003	,000	74	0,35	380	517	25	52	51	48	50	10x5	0
7	EN 10067:1996 BF 160 x 9	VL A36	192593	6200	12	Notes	,15	,21	,91	,011	,012	,12	,10	,23	,030	,031	,032	,002	,000	76	0,36	389	527	26	51	47	47	48	10x7,5	0
8	EN 10067:1996 BF 200 x 9	VL A36	192671	1120	12	Notes	,16	,24	1,00	,010	,008	,11	,10	,20	,024	,031	,026	,003	,000	74	0,38	425	581	24	86	91	76	84	10x7,5	0
9	EN 10067:1996 BF 220 x 10	VL A36	191841	3550	12	Notes	,14	,18	,94	,021	,009	,12	,10	,34	,025	,030	,020	,001	,000	75	0,36	409	562	24	101	114	98	104	10x10	0
10	EN 10067:1996 BF 240 x 11	VL A36	171973	1315	12	Notes	,16	,21	,98	,015	,008	,07	,12	,23	,027	,032	,012	,002	,001	88	0,37	401	542	24	118	93	121	111	10x10	0
11	EN 10067:1996 BF 240 x 11	VL A36	180374	660	12	Notes	,14	,20	1,10	,012	,012	,07	,09	,25	,029	,048	,010	,002	,001	78	0,37	425	560	25	140	136	160	145	10x10	0
12	EN 10067:1996 BF 240 x 11	VL A36	184563	1645	12	Notes	,14	,19	,97	,015	,013	,08	,08	,25	,026	,030	,010	,001	,001	69	0,35	393	523	26	152	117	87	119	10x10	0

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2018-07) rules with satisfactory results.

ÖZKAN
KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAIL BURAL

DNV-GL
CLASS SOCIETY
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes): ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

KALİTE BELGESİ

MİLLİ TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 30.06.2020
SERTİFİKA NO/Cert. No : 20-2514
SAYFA NO/Page No : 1 / 1
DNVGL No : N141JWST

Müşteri/Customer:
TRADETECH METAL SL
PSO RUISEÑORES N 14 3C
ZARAGOZA,SPAIN

TESLİM DURUMU/Condition of Delivery: As Rolled

PROJE NO. : OZ 20-2048-2
Project No.

MÜŞTERİ REFERANS NO.
Customer Reference No.

SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement				
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C	
																					10x10	10x7,5	10x5		
																					ISO-V (Joule)				
DNVGL-SHIP	VL A36	Max	,18	,50	1,60	,035	,035	,20	,40	,35	*	,100	,080	*	*	*	*	*	620	620	22	*	*	*	0
		Min	*	,10	,90	*	*	*	*	*	*	,015	,030	*	*	*	*	*	355	490	22	34	29	23	

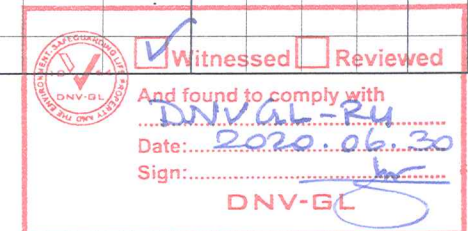
[illegible]

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.

We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the DNV GL Rules for classification – Ships (2019-07) rules with satisfactory results.



KALİTE GÜV. MD./QA&QC Manager
BURÇİN NAİL BURAL



CLASS SOCIETY : DNVGL-SHIP
SURVEYOR : ÖZGÜR KOCABIYIK

ÇEKME TESTİ/ *Tensile Test*: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test:quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Tam Öldürülmüş Çelik/Fully-killed Steel

Bu malzeme RADCOMM RC4069 cihazı ile %100 radyoaktif testten geçirilmiş hurda ile üretilmiştir. This material is produced from scrap which is 100% radioactivity tested with RADCOMM RC4069.

EN 10204 3.2

TARİH/Date : 19.09.2015
SERTİFİKA NO/Cert. No : 15-5139
SAYFA NO/Page No : 1 / 1

[illegible]

We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process and tested in accordance with the requirements of the LLOYD'S REGISTER rules with satisfactory results.

ÇEKME TESTİ/*Tensile Test*: EN 6892-1 ÇENTİK TESTİ/*Impact Test*: ISO 148-1 EĞME TESTİ/*Bending Test*: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)
DEOKSİDASYON/Deoxidation: Yan Öldürülmüş Çelik/Semi-killed Steel

KALİTE GÜV. MD./QA&QC Manager
ERTUĞRUL TURFAN

Lloyd's Register Gözetim Ltd. Şti.
İstanbul-Office

02.10.2015

CLASS SOCIETY : LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU

KALİTE BELGESİ
MILL TEST CERTIFICATE

EN 10204 3.2

TARİH/Date : 28.07.2015
SERTİFİKA NO/Cert. No : 15-3514
SAYFA NO/Page No : 1 / 1

Müşteri/Customer: TRADETECH METAL SL PASEO RUISEÑORES NUM 14, PLANTA 3-C 50006 ZARAGOZA ESPANA	TESLİM DURUMU/Condition of Delivery: As Rolled	PROJE NO. Project No. : OZ 15-2087	MÜŞTERİ REFERANS NO. Customer Reference No. : LRIST1560127
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SPESİFİKASYON/Specification			KİMYASAL KOMPOZİSYON/Chemical Composition of Product (%)															MEKANİK ÖZELLİKLER Mechanical Requirements			ÇENTİK ÖZELLİKLERİ Impact Requirement			
STANDART/Standard	KALİTE/Grade	Limit	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N (ppm)	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	Numune/Specimen (mm)			SICAKLIK Temperature °C
																					10x10	10x7,5	10x5	
																					ISO-V (Joule)			
LR Rules	GRADE A	Max	,21	,50	*	,035	,035	*	*	*	*	*	*	*	*	*	0,40	*	520	*	*	*	*	
		Min	*	*	,50	*	*	*	*	*	*	*	*	*	*	*	*	235	400	22	*	*	*	

ÜRÜN BİLGİSİ/Product Information							KİMYASAL ANALİZ/Chemical Analysis of Product (%)															MEKANİK TEST SONUCU Mechanical Test Value			ÇENTİK TEST SONUCU Impact Test Value					
SIRA Item	EBAT Product (mm)	KALİTE Grade	DÖKÜM NO Heat No	AĞIRLIK Total Weight (kg)	BOY Length (m)	Çelik Üretim Yöntemi Steel making process	C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Nb	Ti	N	Cev	AKMA MUK. Yield Strength (N/mm²)	ÇEKME MUK. Tensile Strength (N/mm²)	UZAMA Elongation (%)	#1	#2	#3	ORT. Av.	NUMUNE Specimen	ŞİC. Temp.
																									ISO-V (Joule)					°C
1	EN10067 BF 80x7	GRADE A	151683	4.360	12	Notes	,17	,16	,56	,009	,018	,07	,09	,21	,001	,001	,013	,001	,001	75	0,30	342	479	34	*	*	*	*	*	*
2	EN10067 BF 100x8	GRADE A	151610	8.721	12	Notes	,16	,20	,79	,012	,011	,08	,08	,23	,006	,001	,014	,001	,001	78	0,34	321	475	35	*	*	*	*	*	*
3	EN10067 BF 100x8	GRADE A	151525	16.699	12	Notes	,16	,15	,58	,011	,017	,09	,09	,19	,002	,001	,012	,001	,001	76	0,30	312	475	36	*	*	*	*	*	*
4	EN10067 BF 120x8	GRADE A	151583	5.431	12	Notes	,17	,16	,57	,011	,012	,11	,08	,19	,001	,001	,030	,001	,001	78	0,31	317	476	33	*	*	*	*	*	*
5	EN10067 BF 120x8	GRADE A	151565	17.885	12	Notes	,17	,15	,57	,011	,012	,11	,08	,18	,001	,001	,027	,001	,001	79	0,31	323	486	32	*	*	*	*	*	*
6	EN10067 BF 120x8	GRADE A	151582	34.224	12	Notes	,16	,16	,61	,011	,014	,10	,08	,17	,002	,001	,021	,001	,001	70	0,30	314	476	35	*	*	*	*	*	*
7	EN10067 BF 140x8	GRADE A	151580	14.000	12	Notes	,18	,17	,55	,009	,009	,08	,09	,18	,003	,001	,021	,001	,001	73	0,30	301	460	34	*	*	*	*	*	*
8	EN10067 BF 160x7	GRADE A	151416	2.300	12	Notes	,18	,17	,55	,014	,012	,08	,09	,22	,003	,001	,016	,001	,001	77	0,31	308	483	28	*	*	*	*	*	*
9	EN10067 BF 160x8	GRADE A	151566	4.220	12	Notes	,18	,16	,56	,015	,013	,08	,09	,19	,003	,001	,016	,001	,001	79	0,31	342	500	31	*	*	*	*	*	*
10	EN10067 BF 180x8	GRADE A	151702	7.780	12	Notes	,19	,17	,55	,013	,007	,08	,08	,22	,003	,001	,017	,001	,001	73	0,32	334	491	36	*	*	*	*	*	*
11	EN10067 BF 180x9	GRADE A	151637	5.440	12	Notes	,17	,18	,55	,011	,018	,07	,07	,16	,001	,001	,016	,001	,001	76	0,30	360	502	32	*	*	*	*	*	*

Yukarıda belirtilen malzeme, ilgili standartlara göre test edilmiş, test sonuçları sipariş şartlarına uygun bulunmuştur.
We hereby certify, that the material described herein has been made to the applicable specification by the hot rolled process
and tested in accordance with the requirements of the LLOYD'S REGISTER rules with satisfactory results.

ÖZKAN®
DEMİR ÇELİK SANAYİ A.Ş.
KALİTE GÜV. MD. QA&QC Manager
ERTUĞRUL TURFAN

29 Jul 2015

Emin Tuğluoğlu

Lloyd's Register Gözetim Ltd. Stl.

CLASS SOCIETY - LLOYD'S REGISTER
SURVEYOR : EMİN TUĞLUOĞLU

ÇEKME TESTİ/Tensile Test: EN 6892-1 ÇENTİK TESTİ/Impact Test: ISO 148-1 EĞME TESTİ/Bending Test: quer D=2s < 180°

Notlar (Notes):

ÇELİK ÜRETİM YÖNTEMİ/Steel Making Process: EAF(Elektrik Ark Ocağı/Electric Arc Furnace); LF(Pota Ocağı/Ladle Furnace); CC(Sürekli Döküm/Continuous Casting)

DEOKSİDASYON/Deoxidation: Yarı Öldürülmüş Çelik/Semi-killed Steel

losalSPECIAL
PROFILES
& BULB FLATS

MATERIAL CERTIFICATE.

Cliente / Client:

ASTILLEROS BALENCIAGA, S.A.

According to EN 10204 - 3.2

Destino / Destined for:

(20750 ZUMAIA - GIPUZKOA)

D.7.6.02 Rev:01

Pos.	Nº de Pedido. Order Nº.	Referencia producto. Description product.	Cal. Qual.	O.F.: W.O.:	Peso / Kg. Weight / Kg.	Nº barras. Nº. Pieces.	Nº Atad. N.Bound.
1	416/0059	HP-160X07X12000	VL A36	037/21	27456	198	11
2		HP-160X09X12000	VL A36	164/20	16569	98	7
3							
4							
5							
6							
7							
8							
9							
10							

DNV

Cert No :

N1424GAW

Quality: VL A36

Delivery condition: As rolled.

According to DNV-GL Rules.

Posición:	N° COLADA CAST NUMBER	COMPOSICION QUÍMICA / CHEMICAL COMPOSITION												PROPIEDADES MECANICAS / MECHANICAL PROPERTIES									
		C max. 0,18	Si max. 0,5	Mn 0,9 - 1,6	P max. 0,035	S max. 0,035	Al	V 0,05 - 0,10	N %	Cr max. 0,20	Cu max. 0,35	Ni max. 0,40	Mo max. 0,08	Test Number.	Y.Stress ReH or Rp0,2 N/mm2 min. 355	Ten. Strength. Rm N/mm2 490 - 630	Elong A 5 % min. 21	Resiliencia / Impact test			10x5x55	10x7,5x55	
																					min 23 J	min 28 J	
																		Test No.	ISO V	J1	J2	J3	T °C
1	210659	0,11	0,23	0,93	0,022	0,009		0,058	0,006	0,190	0,092	0,030	0,012	11758	428	523	28,1	5263	10x5x55	76	72	71	0° C
1	210659	0,11	0,23	0,93	0,022	0,009		0,058	0,006	0,190	0,092	0,030	0,012	11758	428	523	28,1	5264	10x5x55	65	75	78	0° C
2	202776	0,13	0,17	0,93	0,019	0,007		0,055	0,006	0,140	0,052	0,040	0,014	11628	398	533	27,49	5172	10x7,5x55	99	112	89	0° C
3																							
4																							
5																							
6																							
7																							
8																							
9																							

Notes: According to EN 10067 Standard.

According to EN 10163-3 Class C Subclass 3

Material is free of radioactive contamination

Inspeccionado por:

Surveyor Society:

DNV

Inspector:

Surveyor:

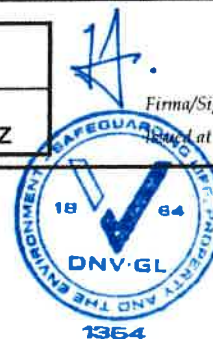
J. A. Rodríguez

Firma/Signed:

Signed at Gernika on:

25/03/2021

(Sello/Stamp)



losal

**SPECIAL
PROFILES
& BULB FLATS**

According to EN 10204 - 3.2

D.7.6.02 Rev:01

MATERIAL CERTIFICATE.

Cliente / Client:

ASTILLEROS BALENCIAGA, S.A.

Destino / Destined for:

(20750 ZUMAIA - GIPUZKOA)

Pos.	Nº de Pedido. Order Nº.	Referencia producto. Description product.	Cal. Qual.	O.F.: W.O.:	Peso / Kg. Weight / Kg.	Nº barras. Nº. Pieces.	Nº Atad. N.Bound.
1	416/0059	HP-120X06X12000	VL A36	056/21	9920	112	4
2		HP-120X08X12000	VL A36	058/21	17143	154	7
3		HP-180X08X12100	VL A36	054/21	30264	169	13
4							
5							
6							
7							
8							
9							
10							

DNV	Cert No :	N1424GB7
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Quality: VL A36

Delivery condition: As rolled.

According to DNV Rules.

Posición:	N° COLADA CAST NUMBER	COMPOSICION QUÍMICA / CHEMICAL COMPOSITION												PROPIEDADES MECANICAS / MECHANICAL PROPERTIES									
		C max. 0,18	Si max. 0,5	Mn 0,9 - 1,6	P max. 0,035	S max. 0,035	Al	V 0,05 - 0,10	N %	Cr max. 0,20	Cu max. 0,35	Ni max. 0,40	Mo max. 0,08	Test Number.	Y.Stress Relf or Rp0,2N/mm2 min. 355	Ten. Strength. Rm N/mm2 490 - 630	Elong A 5 %. min. 21	Resiliencia / Impact test					
																		10x5x55 min 23 J		10x7,5x55 min 28 J		T °C	
																		Test No.	ISO V	J1	J2		J3
1	210932	0,12	0,21	1,14	0,016	0,010		0,059	0,006	0,190	0,071	0,060	0,022	11797	417	511	29,66	5292	10x5x55	68	70	75	0° C
2	210930	0,12	0,17	0,95	0,017	0,007		0,053	0,007	0,180	0,056	0,060	0,021	11803	435	539	28,73	5296	10x7,5x55	116	102	122	0° C
3	202498	0,15	0,19	1,21	0,015	0,012		0,058	0,008	0,070	0,190	0,110	0,015	11798	468	591	24,71	5297	10x7,5x55	116	124	124	0° C
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Notes: According to EN 10067 Standard.

According to EN 10163-3 Class C Subclass 3

Material is free of radioactive contamination

Inspeccionado por:	for DNV
Surveyor Society:	
Inspector:	
Surveyor:	

This document has been digitally signed and will
therefore not have handwritten signatures

Valdizán, Maria José
Surveyor

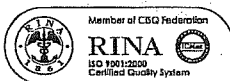
Firma/Signed:

Issued at Gernika on:

16/04/2021



(Sello/Stamp)



G.BAGLIETTO S.A.S. DI
FRANCESCO BAGLIETTO & C.
VIA CASTELGAZZO 11

15067 NOVI LIGURE AL

INSPECTION DOCUMENT N. : 41483

AGENT ORDER N. : 188/

CUSTOMER ORDER N. : MAIL SIG ROSSO

OFFICIAL REGULATION : Rina Rules Pt.D

GRADE : Grade A

Pag.

SURVEY AGENCY: 001 RINA
CERTIFICATE OF ACCEPTANCE

DIST. COLL.: RINA 08/VE/01/29/206

INTERNAL ORDER: I 40069

IT.	SECTION	DIMENSIONS		LENGTH	CAST	CHEMICAL ANALYSIS %											
		mm				C	Si	Mn	P	S							
1	BULB FLAT	➔	260X10	12,00	118015	0,1419	0,1877	0,6420	0,0115	0,0288							
1	BULB FLAT		260X10	12,00	118015	0,1419	0,1877	0,6420	0,0115	0,0288							

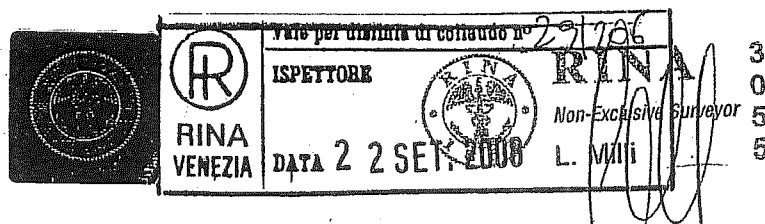
CLD	T	E	S	T	Pieces	Bdls	WEIGHT	TENSILE TEST		IMPACT TEST		BEND TEST		GRAIN	HARDNESS
								ReH/MPa	Rm/MPa	At%	Z%	Kv 300/10 J	C°		
1	RGL	34529	25/07/08	➔ 118015	56	7	19.051	318	478	33,0					
1	RGL	34531	25/07/08	118015	32	4	10.886	306	456	34,0					

We hereby certify that the material described herein has been made to the applicable specification by the controlled rolled process and tested in accordance with the requirements of RINA-L.R.-A.B.S.-D.N.V.-B.V.-G.L.-R.M.S. Rules with satisfactory results.

Marking: on a plastic label attached to each bundle.

MANUFACTURER: AFV ACCIAIERIE BELTRAME SPA STABILIMENTO DI MARGHERA	SOLD OUT	INSPECTOR	DATE	QUALITY CONTROL DEPT Enrico Naccari	QUALITY ASSURANCE DEPT Giorgio Ronchin
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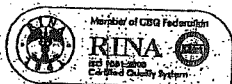
26



3
0
5
5

AFV Acciaierie Beltrame s.p.A. Unipersonale

CAP. SOC. € 104.000.000,00 (i.v.) - SEDE LEGALE - DIREZIONE CENTRALE: 36100 VICENZA
Viale della Scienza, 81 (zona Industriale) - Telefono +39 0444 967111 (15 linee r.a.)
Ufficio Commerciale: Fax +39 0444 348585
R.E.A. n. 292852/VI - Codice Fiscale: Registro Imprese e Partita I.V.A. IT 13017310155



G. BAGLIETTO S.A.S. DI
FRANCESCO BAGLIETTO & C.
VIA CASTELGAZZO 11

15067 NOVI LIGURE AL

INSPECTION DOCUMENT N. 23070

AGENT ORDER N. 1017

CUSTOMER ORDER N. 800/EXP

OFFICIAL REGULATION LR Rules Pt 2

GRADE Grade A

SURVEY AGENCY: 001 LLOYD'S REGISTER
CERTIFICATE OF ACCEPTANCE

DIST. COLL.: L.R. 0600001

INTERNAL ORDER: I 37531

IT.	SECTION	DIMENSIONS mm	LENGTH m	CAST n.	CHEMICAL ANALYSIS											
					C	Si	Mn	P	S							
5	COILS FLAT	→ 220x11	12,00	107177	0,1542	0,1049	0,6230	0,0164	0,0290							
6	COILS FLAT	220x11	12,00	107178	0,1542	0,1049	0,6230	0,0164	0,0290							
CLD	T	E	S	T	Pieces	BDTs	WEIGHT Kg	TENSILE TEST			IMPACT TEST		BEND TEST		GRAIN	HARDNESS
n.	Date			CAST	n.	n.	Kg	Rel/MPa	Rm/MPa	A1%	Kv 300/10 J	C	D	D		
5	L	28679	10/07/06	→ 107177	86	9	25,284	331	457	35,0						
6	L	28680	10/07/06	107178	86	9	24,857	337	453	35,0	94	34	31	0		

We hereby certify that the material described herein has been made to the applicable specification by the controlled rolled process and tested in accordance with the requirements of RINA-L.R. S.D.S. S.M.V. S.V. G.L. R.M.S. Rules with satisfactory results.
(Marking on a plastic label attached to each bundle).

INSPECTOR

DATE

QUALITY CONTROL DEPT

QUALITY ASSURANCE DEPT

Lloyd's Register EMEA

D. Cavallari
Venice Office

Lloyd's Register

02.08.2006

TRUE COPY
G. BAGLIETTO S.A.S. sas