



KOS LIMITED

(YUSAN-DONG) 43, EOSIL-RO, YANGSAN-SI, GYEONGSANGNAM-DO, KOREA

TEL : (055) 389-1050 FAX : (055) 380-8901

E-mail : kosyrd@koswire.com

Inspection Certificate

DATE OF ISSUE: 2018-11-26

DESCRIPTION	STAINLESS STEEL WIRE FOR COLD HEADING (WSB)		
MILL CERT.NO.	AB1-201811S-0195	GRADE	STS 316L
P.O NO.		DIAMETER	2.300 mm
INVOICE NO.	A18B327-01	FINISH	BR X-CO (CARRIER)
CONTRACTOR	PARKWON	QUANTITY	307.0 KGS (1 CARRIER)
CUSTOMER	PARKWON	APP. SPEC	


CHEMICAL COMPOSITION

(wt%)

COMPONENT CH.NO.		C	Si	Mn	P	S	Ni	Cr	Mo			
		Min	0.0000	0.0000	0.0000	0.0000	0.0000	12.0000	16.0000	2.0000		
	Max	0.0300	1.0000	2.0000	0.0450	0.0300	15.0000	18.0000	3.0000			
KMTX00161		0.0130	0.2000	0.8800	0.0340	0.0020	12.1400	16.8500	2.0200			

INSPECTION RESULTS

ITEMS PRODUCTS NO.	SIZE	T/S	R/A			Weight	LOT NO.	REMARK
	(mm)	(N/mm ²)	(%)	()	()	(kgs)		
	+0.000	700.0						
	-0.025	600.0						
A18A19201-0001	2.286	679.5	72.4			307.00	1B2418-81122-0001	KMTX00161

REMARKS	<p>We hereby certify that the material described herein has been made in accordance with the specification of the order.</p> <p>Prior consultation with KOS Quality Control is necessary if used for aerospace, nuclear or medical applications.</p>	 JONG PO . KANG
		MANAGER OF Q.C Dept .

END



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DATE OF ISSUE: 2018-11-26

DESCRIPTION	STAINLESS STEEL WIRE FOR COLD HEADING (WSB)		
MILL CERT.NO.	AB1-201811S-0196	GRADE	STS 316L
P.O NO.		DIAMETER	3.000 mm
INVOICE NO.	A18B327-02	FINISH	BR X-CO (CARRIER)
CONTRACTOR	PARKWON	QUANTITY	463.0 KGS (1 CARRIER)
CUSTOMER	PARKWON	APP. SPEC	


CHEMICAL COMPOSITION

(wt%)

COMPONENT CH.NO.		C	Si	Mn	P	S	Ni	Cr	Mo			
		Min	0.0000	0.0000	0.0000	0.0000	0.0000	12.0000	16.0000	2.0000		
	Max	0.0300	1.0000	2.0000	0.0450	0.0300	15.0000	18.0000	3.0000			
KMTX00161		0.0130	0.2000	0.8800	0.0340	0.0020	12.1400	16.8500	2.0200			

INSPECTION RESULTS

ITEMS PRODUCTS NO.	SIZE	T/S	R/A			Weight	LOT NO.	REMARK
	(mm)	(N/mm ²)	(%)	()	()	(kgs)		
	+0.000	700.0						
	-0.025	600.0						
A18A19202-0001	2.988	655.3	77.8			463.00	1A1005-81119-0001	KMTX00161

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		MANAGER OF Q.C Dept .

END



KOS LIMITED

(SEONGNAM-DONG) 4, GEONJI-RO 109BEON-GIL, SEO-GU, INCHEON, KOREA

TEL : (032) 583-7402 FAX : (032) 583-7403

Inspection Certificate

DATE OF ISSUE: 2019-03-04

DESCRIPTION	STAINLESS STEEL WIRE FOR COLD HEADING (WSA)		
MILL CERT.NO.	AA2-201903S-0036	GRADE	STS 316L
P.O NO.		DIAMETER	1.200 mm
INVOICE NO.	A192310-01	FINISH	BR X-CO (COIL)
CONTRACTOR	KOREA INDUSTRY STAIN	QUANTITY	433.5 KGS (14 COILS)
CUSTOMER	KOREA INDUSTRY STAIN	APP. SPEC	


CHEMICAL COMPOSITION

(wt%)

COMPONENT CH.NO.	C	Si	Mn	P	S	Ni	Cr	Mo			
	Min	0.0000	0.0000	0.0000	0.0000	0.0000	12.0000	16.0000	2.0000		
Max	0.0300	1.0000	2.0000	0.0450	0.0300	15.0000	18.0000	3.0000			
KFQX00160	0.0150	0.2100	0.8300	0.0320	0.0010	12.0200	16.5100	2.0000			
KMTX00161	0.0130	0.2000	0.8800	0.0340	0.0020	12.1400	16.8500	2.0200			

INSPECTION RESULTS

ITEMS PRODUCTS NO.	SIZE	T/S	R/A			Weight	LOT NO	REMARK	
	(mm)	(N/mm ²)	(%)	()	()	(kgs)			
	+0.000	710.0	MIN:70.0						
	-0.020	560.0							
A18C03101-0001	1.197	632.0	81.4			27.70	1T0101-90109-0001	KMTX00161	
A18C03101-0002	1.197	632.0	81.4			30.80	1T0101-90109-0002		
A18C03101-0003	1.197	632.0	81.4			31.00	1T0101-90109-0003		
A18C03101-0004	1.197	632.0	81.4			33.20	1T0101-90109-0004		
A18C03101-0005	1.197	632.0	81.4			31.50	1T0101-90109-0005		
A19137401-0001	1.199	620.1	81.1			32.20	1T0101-90220-0001		KFQX00160
A19137401-0002	1.199	618.6	81.0			33.30	1T0101-90220-0002		
A19137401-0003	1.199	617.9	81.1			33.50	1T0101-90220-0003		
A19137401-0004	1.199	617.4	81.0			34.70	1T0101-90220-0004		
A19137401-0005	1.199	619.3	81.1			33.20	1T0101-90220-0005		
A19137401-0006	1.199	620.1	81.0			30.10	1T0101-90221-0006		
A19137401-0007	1.199	620.4	81.1			31.10	1T0101-90221-0007		
A19137401-0008	1.199	618.8	81.1			26.20	1T0101-90221-0008		
A19137401-0009	1.199	619.0	81.0			25.00	1T0101-90221-0009		

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		MANAGER OF Q.C Dept .

END



KOS LIMITED

(SEONGNAM-DONG) 4, GEONJI-RO 109BEON-GIL, SEO-GU, INCHEON, KOREA

TEL : (032) 583-7402 FAX : (032) 583-7403

Inspection Certificate

DATE OF ISSUE: 2019-03-04

DESCRIPTION	STAINLESS STEEL WIRE FOR COLD HEADING (WSB)		
MILL CERT.NO.	AA2-201903S-0044	GRADE	STS 316L
P.O NO.		DIAMETER	1.600 mm
INVOICE NO.	A193014-01	FINISH	BR X-CO (COIL)
CONTRACTOR	KOREA INDUSTRY STAIN	QUANTITY	365.0 KGS (8 COILS)
CUSTOMER	KOREA INDUSTRY STAIN	APP. SPEC	


CHEMICAL COMPOSITION

(wt%)

COMPONENT CH.NO.		C	Si	Mn	P	S	Ni	Cr	Mo			
	Min	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	12.0000	16.0000	2.0000		
Max	0.0300	1.0000	2.0000	0.0450	0.0300	15.0000	18.0000	3.0000				
KMTX00161		0.0130	0.2000	0.8800	0.0340	0.0020	12.1400	16.8500	2.0200			

INSPECTION RESULTS

ITEMS PRODUCTS NO.	SIZE	T/S	R/A			Weight	LOT NO	REMARK
	(mm)	(N/mm ²)	(%)	()	()	(kgs)		
	+0.000	760.0	MIN:65.0					
	-0.020	580.0						
A18B19707-0004	1.596	721.6	78.7			55.00	IT0101-81129-0004	KMTX00161
A18B19707-0005	1.596	715.3	78.7			40.00	IT0101-81130-0005	
A18B19707-0006	1.596	720.1	78.8			42.00	IT0101-81130-0006	
A18B19707-0007	1.595	718.4	78.9			43.00	IT0101-81130-0007	
A18B19707-0008	1.595	717.8	78.8			45.00	IT0101-81130-0008	
A18B19707-0009	1.595	707.3	78.8			44.00	IT0101-81130-0009	
A18B19707-0010	1.595	712.6	78.9			49.00	IT0101-81130-0010	
A18B19707-0011	1.595	713.5	78.9			47.00	IT0101-81130-0011	

REMARKS	We hereby certify that the material described herein has been made in accordance with the specification of the order.	 JONG PO . KANG MANAGER OF Q.C Dept .
	Prior consultation with KOS Quality Control is necessary if used for aerospace, nuclear or medical applications.	

END

BAR 316L 5MM

To protect the privacy of customers or supplies of Metal Mafia
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LOT NO		GRADE	DIAMETER	LENGTH	WEIGHT	FINISH	SPEC	REMARK			
C133CS103 01		AISI316L	5.00mm	2000mm	361.00KG	BRIGHT		W2(1/4R)			
CHARGE NO		CHEMICAL COMPOSITION (%)									
		C	Si	Mn	P	S	Ni	Cr	Mo	Cu	
SPEC	MIN						10.000	16.000	2.000		
	MAX	0.030	1.000	2.000	0.040	0.030	14.000	18.000	3.000		
H208787		0.023	0.490	1.428	0.030	0.003	10.030	16.970	2.073		
ITEMS NO.	SIZE (mm)	MECHANICAL PROPERTIES						REMARK			
		T.S (N/mm ²)	EL (%)	Y.P (N/mm ²)	HARDNESS ()	R.A (%)	()				
SPEC	MIN	-0.030									
	MAX	0.000									
1	4.979		787								
2	4.979		790								

WE HEREBY CERTIFY THAT MATERIAL HAS BEEN TESTED IN
ACCORDANCE WITH THE SPECIFICATION

당 제품의 항공기용, 원자력용, 의료용 및 방산 제품으로서의 사용은
사전 당사 QC와 협의가 필요합니다.

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customers or supplies of
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from this document

STS 316L

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발행일: 2019-03-04

품명	냉간압조용 스테인리스 강선 (WSB)		
성적서번호	AA2-201903S-0044	강종	STS 316L
주문번호		선경	1.600 mm
송장번호	A193014-01	표면	BR X-CO (COIL)
계약자	주식회사 한국산업스텐	수량	365.0 KGS (8 COILS)
수요자	주식회사 한국산업스텐	규격	

화학성분

(wt%)

원소 CH.NO.	C		Si		Mn		P		S		Ni		Cr		Mo	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
KMTX00161	0.0130	0.0300	0.2000	1.0000	0.8800	2.0000	0.0340	0.0450	0.0020	0.0300	12.1400	15.0000	16.8500	18.0000	2.0200	3.0000

검사결과

항목 제품번호	선경		인장강도		단면감소율		중량		LOT NO	비고
	(mm)	(N/mm ²)	(%)	()	()	(kgs)				
	+0.000	760.0	MIN:65.0							
A18B19707-0004	1.596	721.6	78.7				55.00	1T0101-81129-0004	KMTX00161	
A18B19707-0005	1.596	715.3	78.7				40.00	1T0101-81130-0005		
A18B19707-0006	1.596	720.1	78.8				42.00	1T0101-81130-0006		
A18B19707-0007	1.595	718.4	78.9				43.00	1T0101-81130-0007		
A18B19707-0008	1.595	717.8	78.8				45.00	1T0101-81130-0008		
A18B19707-0009	1.595	707.3	78.8				44.00	1T0101-81130-0009		
A18B19707-0010	1.595	712.6	78.9				49.00	1T0101-81130-0010		
A18B19707-0011	1.595	713.5	78.9				47.00	1T0101-81130-0011		

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Lotus Metal (Thailand) Co.,Ltd.

9/107 Moo 5, Phaholyotin Rd., Klong1, Klong Luang Patumthani 12120 Thailand
 Tel : (66)2-902-0215 to 6 Fax : (66)2-902-0217 Mail : sales@lotusmetal.com

INSPECTION CERTIFICATE

Date of Issue :		16/03/2018		Reference No :		D1/18-180316-5		Certificate No		C1327/0018
No.	Grade	Shape	Size (mm)	Tolerance	Length (M)	Weight (Kgs)	Condition	Heat/Cast No.	Remark	
1	AISI 316L	R	5.00	h9	2.0	484.0	CD	5L870	1-6740	
2	AISI 316L	R	5.00	h9	2.0	484.0	CD	5L870	2-6741	
3	AISI 316L	R	5.00	h9	2.0	239.0	CD	5L870	3-6742-1	

Chemical Composition(%)										
No.	Elements	C	Si	Mn	P	S	Ni	Cr	Mo	
		Min	Max	Max	Max	Max	Max	10.00	16.00	2.00
	Spec	Max	1.00	2.00	0.045	0.030	14.00	18.00	3.00	
1	Heat/Cast No 5L870	0.016	0.38	1.69	0.025	0.0266	10.05	16.80	2.04	



Lotus Metal (Thailand) Co., Ltd.

AUTHORISED SIGNATURE

Remark : TS - Tensile Strength, YS - Yield Strength, EL - Elongation, RA - Reduction of Area

D.O. NO.	DA 1523
P.O. NO.	RM 201712116
QUANTITY.	500 kg.
AUTHORISED SIGNATURE :	



Lotus Metal (Thailand) Co.,Ltd.

9/107 Moo 5, Phaholyotin Rd., Klong1, Klong Luang Patumthani 12120 Thailand
Tel : (66)2-902-0215 to 6 Fax : (66)2-902-0217 Mail : sales@lotusmetal.com

INSPECTION CERTIFICATE

Date of Issue :		24/04/2018		Reference No :		E4/18-180424-1		Certificate No		C1382/0018	
No.	Grade	Shape	Size (mm)	Tolerance	Length (M)	Weight (Kgs)	Condition	Heat/Cast No.	Remark		
1	AISI 316L	R	3.00	+0/-0.02	Coil	505.8	Wire	5H579	13-6805		



Chemical Composition(%)													
No.	Elements	C	Si	Mn	P	S	Ni	Cr	Mo				
	Spec	Min	Max	Max	Max	Max	10.00	16.00	2.00				
		Max	0.030	1.00	2.00	0.045	0.030	14.00	18.00	3.00			
1	Heat/Cast No 5H579		0.020	0.39	1.75	0.031	0.0269	10.08	17.16	2.03			

Remark : TS - Tensile Strength , YS - Yield Strength , EL - Elongation , RA - Reduction of Area

บริษัท โลตัส เมทัล (ประเทศไทย) จำกัด
LOTUS METAL (THAILAND) CO., LTD.

D.O. NO : 61/1522

P.O. NO : RM 201803003

จำนวน
QUANTITY : 200.50kg.

ลายเซ็นของผู้มีอำนาจ
AUTHORISED SIGNATURE :

AUTHORISED SIGNATURE

