

HENGYANG VALIN
STEEL TUBE CO.,LTD

MILL TEST CERTIFICATE

(ACCORDING TO EN10204-2004 3.1)

Add: 10 Dalixincun, Hengyang City,Hunan,P.R.China P.C.:421001

Tel and Fax: +86 734 8873739

E-mail: hsiec@hysteeltube.com

CUSTOMER				CERTIFICATE NO.	C201742554-1		
CONTRACT-ITEM NO.	2111003041- 04	P.O.NO.	45012		DATE:	2017-12-13	PAGE: 1/3
PRODUCT	SEAMLESS STEEL LINE PIPE			DELIVERY CONDITION	N		
SPECIFICATION	SEE SPECIFICATION NOTE		HEAT TREATMENT		850℃-950℃		
GRADE	BN			DIMENSIONS	6 SCH40/STD		
TOTAL BUNDLES:	21	TOTAL PIECES:	146	TOTAL LENGTH:	1729.750 m	TOTAL WEIGHT :	48.880 mt

NO.	BATCH No.	HEAT No.	BUNDLES	PIECES	LENGTH	WEIGHT	TENSILE TEST ASTM A370					
					m	mt	SAMPLE TYPE/ ORIENTATION / SIZE(mm/GAUGE LENGTH(mm):S\L\25\50					
						W1	TS(MPa)	YS(MPa)	RT0.5	EL(%)	R.A. (%)	YS/TS
1	6GZ051081	1714505	21	146	1729.750	48.880	477	351	37.5			0.74

NO.	IMPACT TEST								NON METALIC INCLUSION	GRAIN SIZE	HARDNESS TEST	
	NOTCH TYPE/ORIENTATION/TEMPERATURE(℃)/SIZE (mm) :										HV10	
	V8/L/0℃/10*5*55											
	AK1 (J)	Av.(J)	% SHEAR AREA	LE	AK2 (J)	Av.(J)	% SHEAR AREA	LE				
1	99/98/105/	101			/					145		

NOTES:											
W1--THEORETICAL WEIGHT				SAMPLE ORIENTATION : L--LONGITUDINAL T--TRANSVERSE N--NORMALIZING				HE--HOT EXPANDED			
W2--ACTUAL WEIGHT				SAMPLE TYPE: S---STRIP C-- CLUBBED F--FULL-SECTION				A--ANNEALING HR--HOT ROLLED			
NR--NORMALIZING ROLLED				Q&T--QUENCHING AND TEMPERING				Av.--AVERAGE N&T--NORMALIZING AND TEMPERING			
AK1--ABSORB ENERGY FOR THE FIRST SET				AK2--ABSORB ENERGY FOR THE SECOND SET				LE--SIDE EXPANSION			

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NO	HEAT No. BATCH No.	Type	CHEMICAL COMPOSITION (%)																																			
			C	Si	Mn	Cr	Mo	W	Cu	Ni	P	Al	Sn	As	Pb	Sb	Nb	Ti	Zr	N	Bi	S	V	B	Ca	CE	SUM1	SUM2	SUM3	R1	R2	R3						
			*100			*1000															*10000					*100		*1000										
		P																																				
1	1714505	H	14	28	99	61	19		48	31	15						1	2				58	90	1		33	168	10	12									
	6GZ051081	P	14	29	96	84	9		52	17	15						7	2				54	67	2		32	168.7	13.7	15.7									
	6GZ051081	P	14	29	98	84	9		52	17	15						7	2				54	67	2		33	168.7	13.7	15.7									
		H																																				
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NON-DESTRUCTIVE TEST				BEVELLING			
POSITION	PIPE BODY		PIPE END		END SURFACE(GR)		RECEPTABLE
NDT Type(Level)	EMI/L4		UT/L4				RECEPTABLE
LAMINAR							RECEPTABLE
TEST RESULT	ACCEPTABLE		ACCEPTABLE				RECEPTABLE
RESIDUAL MAGNETISM			ACCEPTABLE				RECEPTABLE
UT THICKNESS MEASUREMENT			N/A				RECEPTABLE
HYDROSTATIC TEST	Min(MPa/s)	12.4/6	ACCEPTABLE				RECEPTABLE

NOTES: H--HEAT ANALYSIS P--PRODUCT ANALYSIS CE--EQUIVALENT CARBON R--RATIO R1=Ca /S R2=Mn /C R3=Mn /C
CEIIW=C+Mn/6+(Cr+Mo+V)/5+(Cu+Ni)/15 CEPCM=C+Si/30+(Mn+Cr+Cu)/20+Ni/60+Mo/15+V/10+5*B SUM1=Cr+Cu+Mo+Ni+V SUM2=Ti+V SUM3=Nb+V+Ti
ET-ISO10893-2-2011、UT-ISO10893-10-2011、MPI-ISO10893-5-2011、EMI-ISO10893-3-2011、WT-ISO10893-12-2011、LaminationT-ISO-10893-8-2011
L4/L3/L2--ACCEPT LEVEL L4/L3/L2,NOTCH DEPTH IS 12.5% /10% /5% THE SPECIFIED WALL THICKNESS.

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		REMARK : 1.ORIGIN: MADE IN CHINA;2.STEEL IS FULLY KILLED AND FINE GRAIN PRACTICE;
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SPECIFICATION NOTE	API 5L 45th PSL2/ASTM A106 2015/NACE MR0175 (2013)/ISO 15156 (ONLY FOR HARDNESS)	
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We hereby certify that material herein described has been manufactured in accordance with the standards and specifications required in your order and satisfies the corresponding requirements.		
This certificate is issued by a computerized system and it is valid with electronic signature. In case the owner of the certificate would release any copy of it ,he must attest its conformity to the original one taking upon himself the responsibility for any unlawful or not allowed use.		
Any alteration and/or falsification will be subject to the law.		
If you need to assure the authenticity of this certificate ,please do not hesitate to contact Hengyang Valin Steel Tube CO.,LTD. E-mail: hsiiec@hysteeltube.com		
CUSTOMER THIRD PARTY		Certificate-maker: 叶子义