



# Test Certificate

Form TC1: Revision 3: Date 7 Feb 2018

13609 Industrial Road, Houston, TX 77015, US

<b>Customer:</b> NORTH SHORE STEEL CO, INC 1566 MILES STREET VENDOR 52155 HOUSTON TX 77015	<b>Customer P.O.No.:</b> 303965	<b>Mill Order No.</b> 41-544068-06	<b>Shipping Manifest:</b> HT117254	
	<b>Product Description:</b> ASTM A36(14)/A709(17)36/ASME SA36(17) AASHTO M270(15)36, 0.80-1.20 MN		<b>Ship Date:</b> 28 Jun 18 <b>Cert Date:</b> 28 Jun18	<b>Cert No:</b> 031207198 (Page 1 of 1)
	<b>Size:</b> 0.500 X 96.00 X 480.0 (IN)			

Tested Pieces:				Tensiles:					Charpy Impact Tests													
Heat Id	Piece Id	Piece Dimensions	Tst Loc	YS (KSI)	UTS (KSI)	%RA	Elong %		Tst Dir	Hardness	Abs. Energy(FTLB)				% Shear				Tst Tmp	Tst Dir	Tst Siz (mm)	BDWTT Tmp %Shr
							2in	8in			1	2	3	Avg	1	2	3	Avg				
W8E570	0300	0.501 (T.L.C)	L	51	68		36		T													
			C	50	68		35		T													

Heat Id	Chemical Analysis																	ORGN
	C	Mn	P	S	Si	Tot Al	Cu	Ni	Cr	Mo	Cb	V	Ti	B	N	IIW		
W8E570	.17	.83	.008	.001	.06	.042	.21	.12	.08	.03	.001	.004	.018	.0001	.0061	.36	USA	

KILLED STEEL  
 MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT.  
 $CEV (IIW) = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15$   
 MTR EN 10204:2004 INSPECTION CERTIFICATE 3.1 COMPLIANT  
 100% MELTED AND MANUFACTURED IN THE USA.  
 MATERIAL MARKED BELOW WITH AN ASTERISK IS PRODUCED FROM COIL  
 PRODUCTS SHIPPED:  
 \* W8E570                    0300                    PCS:    7, LBS:    45738

(P)      Cust Part #:	WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH, AND MEETS THE REQUIREMENTS OF, THE APPROPRIATE SPECIFICATION	<u>Justin Ward</u> SENIOR METALLURGIST - PRODUCT
-----------------------	--	---