

# SSAB

## Test Certificate

Form TC1: Revision 3: Date 7 Feb 2018

12400 Highway 43 North, Axis, Alabama 36505, US

<b>Customer:</b> NORTH SHORE STEEL CO, INC 1566 MILES STREET VENDOR 52155 HOUSTON TX 77015	Customer P.O. No.: 305129	Mill Order No.: 41-545966-04	Shipping Manifest : AT270710	
	Product Description: ASTM A36(14)/A709(17)36/ASME SA36(17) AASHTO M270(15)36, 0.80-1.20 MN		Ship Date: 13 Aug 18 Cert Date: 13 Aug 18	Cert No: 081678029 ( Page 1 of 1 )
	Size: 0.313 X 120.0 X 480.0 (IN)			

Tested Pieces			Tensiles					Charpy Impact Tests															
Heat Id	Piece Id	Tested Thickness	Tst Loc	YS (KSI)	UTS (KSI)	%RA	Elong % 2in 8in	Tst Dir	Hardness	Abs. Energy(FTLB)				% Shear			Tst Tmp	Tst Dir	Tst Siz (mm)	BDWTT			
										1	2	3	Avg	1	2	3	Avg				Tmp	%Shr	
W8H547	E73	0.256 (DISCRT)	L	50	64		28	T															
W8H547	E75	0.320 (DISCRT)	L	53	65		27	T															

Heat Id	Chemical Analysis																ORGN
	C	Mn	P	S	Si	Tot Al	Cu	Ni	Cr	Mo	Cb	V	Ti	B	N	IIW	
W8H547	.04	1.13	.012	.003	.28	.028	.30	.16	.20	.03	.000	.004	.008	.0002	.0071	.31	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.  
 PRODUCTS SHIPPED:  
 W8H547                      E76                      PCES:    6,    LBS:    30678                      W8H547                      E75                      PCES:    3,    LBS:    15339

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