

**Steel Dynamics, Inc.**

Long Products Group  
 Structural and Rail Division  
 Columbia City, Indiana 46725  
 (80) 625-8100 (280) 625-9850 FAX

Quality Steel 100% EAF Melted and Manufactured in the USA  
 SO 9001:2015 and ABS Certified  
 MTR complies with EN 10204 3.1.

**CERTIFIED MILL TEST REPORT**

Ship to: Customer # 000320  
 8415 Clinton Drive

Printed: 06 / 23 / 2023  
 Produced: 06 / 06 / 2023

Bill to: Accounts Payable

**GENERAL INFORMATION**

Product Wide Flange Beam  
 Size W12X87  
 W310X129  
 Heat Number A229672  
 Condition(s) As-Rolled  
 Fine Grained  
 Fully Killed  
 No Weld Repair

**SPECIFICATIONS**

Standards  
 \* ASTM A992/A992M - 22  
 ASTM A6/A6M - 21  
 ASTM A572/A572M - 21  
 ASTM A709/A709M - 21  
 AASHTO M270/M270 - 20  
 CSA G40.21-13  
 ASTM A36/A36M - 19

**SHIPMENT DETAILS**

BOL # 0000776887 - 3480.00 lbs  
 Bundle / ASN # 023290254  
 Length 40' 0"  
 pcs 1  
 Cust PO SSW135505  
 Job/Ref  
 Part/Ref

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	AI	N	B	*CE1	*CE2	*CE3	*I	Analysis Type
.08	1.24	.012	.019	.24	.28	.09	.11	.02	.009	.050	<.001	.002	.0136	.0004	.35	.387	.31	5.48	Heat

**MECHANICAL TESTING**

Test	Yield (fy)	Tensile (fu)	% Elong. {8" gage}
	Strength ksi / MPa	Strength ksi / MPa	
1	60 / 415	75 / 515	28
2	60 / 415	75 / 515	25
3			
4			

**CHARPY IMPACT TESTS** (available only when specified at time of order)

Test	Temp	Absorbed Energy	Average	Minimum
	F / C	ft-lbf / J		
1				
2				
3				
4				
5				
6				
7				

Notes: \* Calculated Chemistry Values: Carbon Equivalents (C1, C2, C3, PC), Corrosion Index (I) (ASTM G10)- 26.01(Cu)+3.82(Mn)+1.48(Si)+17.28(P)+7.28(Cu)(Ni)+9.10(M)(P)+33.38(Cu)<sup>2</sup>  
 CE1 (IIR)=C+Mn/8+(Cr+Mo+V)/5+(Ni+Cu)/15 CE2 (AWS)=C+(Mn+Si)/8+(Cr+Mo+V)/5+(Ni+Cu)/15 CE3 (CET) = C + (Mn/6) + (Si/24) + (Cr/5) + (Ni/40) + (Mo/6) + (V/14)

I hereby certify that the material described herein has been made to the applicable specification by the electric arc furnace/continuous cast process and tested in accordance with the requirements of American Bureau of Shipping Rules with satisfactory results.

**ABS CERTIFICATION**

Signed: **Doug Blomeke** Quality Manager

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me  
 this \_\_\_\_\_ day of \_\_\_\_\_

*Doug Blomeke*

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
 Notary Public

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report