

2601 S. County Road 700 East
 Columbia City, Indiana 46725
 (260) 625-8100 (260) 625-8950 FAX

Quality Steel 100% EAF Melted and Manufactured in the USA ongv ew ,
 Attn: Receiving an a an ,
ISO 9001:2015 and ABS Certified
CMTR complies with EN 10204 3.1.

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS		
Product	American Standard C	Standards	Grades	BOL # 0000824148 - 4000.00 lbs		
Size	C12X25 C310X37	ASTM A6/A6M - 24		Bundle / ASN #	Length	pcs
Heat Number	A242695	» ASTM A992/A992M - 22	A992 / A992M	Cust PO	Job/Ref	Part/Ref
Condition(s)	As-Rolled Fine Grained Fully Killed No Weld Repair	ASTM A572/A572M - 21	A572 gr50/gr345	062041599	20' 0"	8 4500574044 JP425 000000002512250
		ASTM A709/A709M - 21	A709 gr50/gr345			
		AASHTO M270M/M270 - 23	M270 gr345/gr50			
		CSA G40.21-13	50WM/345WM			
		ASTM A36/A36M - 19	A36 / A36M			

CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	Al	N	B	*CE1	*CE2	*CE3	*I	Analysis Type
.07	1.24	.013	.024	.22	.34	.13	.13	.03	.012	.036	.002	.001	.0142	.0005	.35	.384	.30	5.85	Heat

MECHANICAL TESTING					CHARPY IMPACT TESTS (available only when specified at time of order)					
Test	Yield (fy) Strength	Tensile (fu) Strength	fy / fu ratio	% Elong. {8" gage}	Test	Temp	Absorbed Energy		ft-lbf / J	
	ksi / MPa	ksi / MPa				F / C	Specimen 1	Specimen 2	Specimen 3	Average
1	60 / 415	77 / 530	.78	26	1					
2	58 / 400	77 / 530	.75	25	2					
3					3					
4					4					
					5					
					6					
					7					

Notes: *Calculated Chemistry Values: Carbon Equivalents (C1, C2, C3, PC), Corrosion Index (I) {ASTM G101}= 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)-7.29(Cu)(Ni)-9.10(Ni)(P)-33.39(Cu²)
 CE1 {(IIV)=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE2 {AWS}=C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE3 {CET}= C + (Mn/6) + (Si/24) + (Cr/5) + (Ni/40) +(Mo/4) + (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.

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.

ABS CERTIFICATION

State of Indiana, County of Whitley Sworn to and subscribed before me

this _____ day of _____

Signed: _____ My commission expires: _____
 Notary Public