Date: 1/3/2024 To: SENTRY SUPPLY dba SO#: A798864 Ln#: 1 PO#: PO246233-01 Part: I18547040* Qty: 1 Heat#: 570394*
Tag: B03010324

Invoice No.	
Bill of Lading	LR#27450
Customer No.	8339
Customer P.O	SSW133121

NUCOR-YAMATO STEEL CO.
P.O. BOX 1228: BLYTHEVILLE, AR 72316

CERTIFIED MILL TEST REPORT
100% Melted and Manufactured in U.S.A
All Shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice

Date 01/19/2023 9:28 AM

SOLD TO

SHIP TO

ASTM A992/A992M-20 A572/A572M GR50-18
ASTM A709/A709M-18 GR50 (345)
ASTM A709/A709M-18 GR50S (345S)
CSA G40.21-13 50WM (345WM)
ASTM A6/A6M-19

Item	Item Description	QTY	Heat#	Mechanical Properties							Chemical Properties														
				Yield to Tensile Ratio	Yield Strength	Tensile Strength	ELONG	Charpy Impact			C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	Sn	Pcm	Cl
								Temp	Impact Energy	Loc															
					KSI	KSI	%	°F	ft•lbf																
					MPa	MPa	%	°C	J																
1	S18X054.7 40 ft 0 in S460X81.4 (12.19 m)	3	570394	0.77 0.76	55 55 381 379	72 72 494 496	26 26				.07	1.12	.014	.029	.22	.31	.13	.09	.04	.04	.001	.32	.01	.16	

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH
Pcm= C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B(B=Approx .0005)
Corrosion Index= 26.01(%Cu)+3.88(%Ni)+1.2(%Cr)+1.49(%Si)+17.28(%P)-7.29(%Cu)(%Ni)-9.10(%Ni)(%P)-33.39(%Cu)^2
ISO 9001:2015 certified (Registration #0985-07).
Meets mechanical lab independence requirements of EN10204 type 3.1.
The Charpy machine striker geometry used by Nucor-Yamato Steel is the 8 mm (0.315")striker (KV_8) per ASTM A370 Section 22.1.2 and ISO 148-1 Section 7.3.

CARBON EQUIVALENT CE= C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15
Mercury has not been used in the direct manufacturing of this material
Boron has not been intentionally added and will not exceed 0.0008%
This material was produced in accordance with the Nucor-Yamato Steel Quality Manual.

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications, and when designated by the purchaser, meet the applicable specifications.

Chief Metallurgist

State of Arkansas
County of Mississippi
Sworn to and subscribed before me
on 2023-01-19 Deborah Ann Rhodes
My commission expires on 07/17/2023

NOTARY PUBLIC