

HARDNESS INSPECTION REPORT

CD-12110



Page 1 of 1

Date: MARCH 15, 2018

P.O.# A0101610

Job #

Technique: NDT-P-H-100 REV 0

Lot 2, 52001 Range Road 275 • Spruce Grove, AB T7X 3V2 • Tel: (780) 968-5672 • Fax: (780) 968-0750

Customer CRANE Test Method ASTM E110

Location 9423-41 Ave Edm, AB T6E 5X7 Customer Spec.

Inspection Technique:

Black Light Manufacturer: Type: Calibration Due Date:

Yoke Manufacturer: Type: Calibration Due Date:

Hardness Manufacturer: Krautkramer Sn#34101-5098 Type: MIC 10 Calibration Due Date: 05/02/18

Radio, Photo Meter: SN: Calibration Due Date:

Black Light Sensor SN: White Light Sensor SN: Calibration Due Date:

Black Light Intensity at test surface: Background Visible Light Intensity:

Coil Manufacturer: Coil Amp / Turns: SN: Demagnetized:

Magnetizing Method: ☐ AC ☐ DC ☐ Continuous ☐ Residual ☐ Yoke ☐ Coil

Magnetic Particle: ☐ Dry ☐ Wet ☐ Fluorescent 14A ☐ 7HF Black ☐ Non-Fluorescent ☐ White Contrast

Manufacturer: Batch#:

Liquid Penetrant Method: ☐ Visible ☐ Fluorescent ☐ Water Wash ☐ Post Emulsified ☐ Solvent Removable

Manufacturer: Batch#:

Surface Condition: ☐ Machined ☐ Bare Metal ☐ AS Welded ☒ Painted ☐ Sandblasted

ITEMS:

(QTY 1) - 6" 067 WCB Plug Valve

V#1, Body - (177 BHN) Cap (125 BHN)

Xomox Serial #: XEDM6020

Heat # (s): Body: K1J239 Cover: 90WR

RESULT:

Hardness Results Pass! as per spec.

Hardness Tests were performed with Krautkramer MIC 10 SN: 34101-5098.

Hardness Calibration Reference Block SN: 0805714, 217 Bhn.

Technician: Darren Matheson Signature:

C.G.S.B Level # 2 Certificate # 4618 Accepted by Client Representative:

Form: Rev 2

8401254938 H# K15239 Line 1
lea

**SANMAR FOUNDRIES LIMITED**

87/1, Vadugapatti Village, Viralmalai-621 316 Pudukkottai Dt. India

Phone : 04339 - 220017 Fax : 04339 - 220012

Material Test Certificate According to EN10204 3.1

TC No : C117142575

Heat No : 1J239

Grade : ASTM A216 GR WCB-16

Castings are Manufactured by Electric Induction Melting

Date : 15.11.2017

Foundry Id : SACL

Pouring Date : 12.09.2017

Customer

XOMOX CHIHUAHUA S.A. DE C.V.

JUAN RUIZ DE ALARCON 313,

CHIHUAHUA 31109

Mexico

Chemical Elements %	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	V	TRE	CE							
Min																			
Max	0.250	1.000	0.600	0.035	0.035	0.500	0.500	0.200	0.300	0.030	1.000	0.500							
Actual	0.225	0.835	0.550	0.011	0.024	0.224	0.018	0.047	0.040	0.008	0.337	0.42383							

HEAT TREATMENT: Normalizing - Heated to 920 Deg C (1688 Deg F) soaked for 5.00 hrs and then air cooled.

MECHANICAL PROPERTIES	Yield Strength (0.2 % offset)			Tensile Strength			%of Elongation (CL= 50mm)	% Reduction of Area	Hardness (HBW)		Quench Hardness (HBW)	Sheer	DI	Bend Mandrel Dia = 2.6t t = mm Angle = °	Impact (ISO-V-2mm) CVN/CUN at °C (SIZE 10 X 10 X 55 MM) J or Kgfmm/Sq.Cm			
	Mpa	Kgf/Sq. mm	Ksi	Mpa	Kgf/Sq. mm	Ksi			I	II					III	AVG		
Min.	250.0	25.5	36.2	485.0	49.4	70.2	22.0	35.0	-	-	-	-	-	-	-	-	-	-
Max.	-	-	-	655.0	66.8	94.8	-	-	-	-	-	-	-	-	-	-	-	-
Actual	333.2	34.0	48.2	524.0	53.4	75.8	30.5	54.5	156									

Item Details

S.No	Description	Heat Code	Drawing No with Revision/Part No	P.O. References	Quantity
1	6" 067 BODY (WITH BOLT HOLE)	K1J239	N6774-TOR REV B/026774	PO51184 - 4	1

Casting Checked dimensionally and visually accepted as per MSS SP-55 and free from Radioactive contamination.

We Confirm that the castings covered by this certificate were manufactured, sampled tested and inspected in accordance with purchase order requirements and material specification. ASTM A216 GR WCB-16 and was found to meet the requirements.

F-QAD-10-06-Oct-2016

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Checked By

M. Jayapal
ENGINEER-QC

Approved By

K.B. Biju
GEN. MANAGER-QUALITY



SANMAR FOUNDRIES LIMITED(Investment)
87/1 , Vadugapatti Village, Viralmalai-621 316 Pudukkottai Dt. India
Phone : 04339 - 220017 Fax : 04339 - 220012
Material Test Certificate According to EN10204 3.1

TC No : C117131622

Heat No : 90WR

Grade : ASTM A216 GR WCB-16

Castings are Manufactured by Electric Induction Melting

Date : 16.09.2017
Foundry Id



Pouring Date : 05.09.2017

Customer
XOMOX CHIHUAHUA S.A. DE C.V.
JUAN RUIZ DE ALARCON 313,
CHIHUAHUA 31109
Mexico

TEST METHODS: ASTM E415:2015

Chemical Elements %	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	V	TRE						
Min	-	-	-	-	-	-	-	-	-	-	-						
Max	0.300	1.000	0.60	0.035	0.035	0.500	0.500	0.200	0.300	0.03	1.00						
Actual	0.199	0.822	0.409	0.018	0.031	0.101	0.002	0.014	0.033	0.006	0.156						

HEAT TREATMENT: Normalising - Heated to 930 Deg C(1706 Deg F) soaked for 2.50 hrs and then air cooled.

TEST METHODS: Tensile: ASTM A370:2015

Hardness: ASTM E10:2015A

Bend: ASTM A370:2015

Impact: ASTM A370:2015

MECHANICAL PROPERTIES	Yield Strength (0.2 % offset)		Tensile Strength			% of Elongation (50mm)	% Reduction of Area	Hardness (HBW)		Bend Mandrel Dia = 2.6t t = mm Angle = °	Impact (ISO-V-2mm) CVN/CUN at: °C (SIZE 10 X 10 X 55 MM) J or Kgf/m/Sq.Cm			
	Mpa	Kgf/Sq. mm	Ksi	Mpa	Kgf/Sq. mm			I	II		I	II	III	AVG
Min.	275.0	28.0	39.8	485.0	49.4	70.2	35.0	-	-					
Max.	-	-	-	655.0	66.8	94.8	-	-	-					
Actual	344.0	35.1	49.8	579.0	59.0	83.8	51.0	170						

Item Details

S.No	Description	Heat Code	Drawing No with Revision/Part No	P.O. References	Quantity
1	6"150/300 COVER CASTING	90WR	N-3226 REV J/023226	PO50563 - 5	13
2	6"150/300 COVER CASTING	90WR	N-3226 REV J/023226	PO50563 - 5	15

We hereby certify that the product is free from radioactive contamination. "Castings checked visually & accepted as per GP-QA-040 REV4

We Confirm that the castings covered by this certificate were manufactured, sampled tested and inspected in accordance with purchase order requirement and material specification. ASTM A216 GR WCB-16 and was found to meet the requirements.

Checked By

Arul Vadivelan

Arul Vadivelan

EXE. MANAGER - QUALITY

Approved By

D. Madheswaran

D Madheswaran

ASST. GEN. MANAGER-QUALITY

F-QAD-10-06-Oct-2016

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