



SERIAL NUMBER: T-226 COOK DATE: _____

MOLD SIZE _____ BY _____ PO _____

ORDER DATE 5/1/23 SHIP DATE: 5/2/23

FOR: WFR

SIZE 2.800 X 2.265 TYPE SKDS

THREAD _____ OTHER Head only

MATRIX (H) _____ WEIGHT _____

MATRIX (S) X 34839 WEIGHT _____

BINDER X 311271 WEIGHT _____

BLANK 48118 TJ _____

BILLET _____ TUBE _____

WELD _____ MPI _____ MPI PIC _____ BRAZE _____

THREAD GAGE _____ STAND OFF _____

FINAL DIAMOND GRIND SIZE _____

LENGTH TO WELD _____

FINISHED PIC TAKEN BY _____ CRATED BY _____ DATE: 5/2/23

International _____ domestic _____

SHORT BIT & TOOL CO
225 GOLD STREET
GARLAND TX 75042
972-205-1011
shortbits@gmail.com



Certificate of Conformance

Serial Number	Size	Type	Steel or Matrix	Shank Diameter	Bore
T-226	2.800 x 2.265	SXDS	Matrix		
Component	Material	Vender	Lot or Heat Number		
Blank	8620	RHW	48118		
Hard Powder					
Soft Capping Powder	W2	SURFACE	34849		
Tool Joint					
MIG Weld					
Tubing					
Inspection					
Diamond Grinding To Size					
Weld MPI					
Thread Gaging					
Signed By: <i>VB</i>		date: 5/4/2023			



Surface Engineering Powders

Certified Material Test Report

Company Short Bits P.O.#: Vickie
Alloy Type: PWCTPM002 Size: 80/325 Mesh: 80/325 Micron: 180/45um
Description CTPM CRYSTALLINE W 80 X 325 MESH Quantity: 50lbs
Specification N/A Type/Class: N/A
Heat Number SE-34839

Chemical Analysis Actual: x Nominal: _____

The data contained herein were obtained from samples considered to be representative of the products in the subject shipment and are believed to be reliable. All operations performed comply with the material specification and the purchase order.

Element Concentrations (Weight Percent)

Al:	B:	Be:	C:	Co:	Cr:	Cu:	Fe:
Mn:	Mo:	N2:	Nb:	Ni:	O2:	P:	S:
Si:	Ta:	Ti:	V:	W:	BAL	Wc:	TAO:

Oth: _____ Analytical Process(es): _____

Sampling Procedure / Spec: ASTM B215-10
Hall Flow / Spec: ASTM B213-13

Powder Mesh / Spec: ASTM B214-07-2011
Apparent Density / Spec: ASTM B212-13

Physical Properties

Material Hardness Scale: Rc: N/A HB: _____ Hv: _____ Hk: _____

Hall Flow 10.00 Sec./50g Apparent Density: 8.30 g/cm³

Particle Size Distribution: Size Microns(um)/U.S. Sieve (mesh)

180/80: <u>1.20</u>	150/100: _____	125/120: _____	106/140: _____
90/170: _____	75/200: <u>58.10</u>	63/230: _____	53/270: _____
45/325: <u>33.46</u>	38/400: <u>7.00</u>	32/450: _____	25/500: _____
20/635: _____	15/800: _____	+10: _____	+5: _____

Other: _____

Surface Engineering Alloy Company hereby certifies the above listed material meets all requirements of the above listed specifications in addition to the confirmation that during the manufacturing process, testing, and inspection, the product was completely void of contact with the element Mercury or any of its compounds. In addition, this certification validates that all test results and operations performed by Surface Engineering Alloy Company, or its subcontractors, are in compliance with the material specification and the specific applicable material requirements of ASME SFA 5.21, of ASME Section II. The requirements of Federal Law, Title 18, Chapter 47 apply to this order and to sub-tier suppliers.



Reporting Officer
Ian Oberholtzer

2/28/2023
Date

2895 46th Ave North
St. Petersburg, FL
Main Office: 727.528.7998
www.surfaceengineering.com

Certificate of Analysis

October 21, 2022

Customer Order No:

VERBAL-VICKIE

Customer ID:

SHORTC

Customer Name:

Short Bits & Tool

Sales Order No:

43850

Item No: 4483D

Virgin Grade Binder Alloy

Shape: 1/2" x 1/2" x 3/4" Tumbled Sheared Pcs.

311271

CU	47.11
MN	24.38
NI	20.02
ZN	8.14
B	.11
SI	.16
FE	.02
PB	<.05
SN	.01

BELMONT METALS, INC.

Nasir Naseer

QC Administrator

BELMONT



METALS

BENEFICIARY: MORAVIA STEEL, a.s.,
PRŮMYSLOVÁ 1000SOCHOROVÁ VÁLCOVNA TŽ, a.s. / Průmyslová 1000/ 739 70 Třinec - Staré Město / Czech republic/
výrobní závod: 272 01 Kladno-Dřih

Magellan Corporation

Ihr Auftrag - Your order:
208868Werks Nr. - Our order:
7000340712 / 000010
0041229719 / 321Lake Cook Road 1650
60015 Deerfield, IL
USAAviso - Advise note:
oder/lor

Waggon No:

EU-Lieferschein Nr.- Delivery note:
12/12/002837/03 17.12.2012 8154-5971545-5Abnahmeprüfzeugnis 3.1- Inspection certificate 3.1 - Certificat de réception 3.1, EN 10204:2004
CERTIFICATE OF CHEMICAL AND PHYSICAL ANALYSIS

Lieferung - Delivery - Livraison	Gewicht - Weight - Poids	Güte - Grade - Qualité	Norm - Standard - Norme
HOT ROLLED STEEL ROUND BARS PRODUCED IN ACCORDANCE TO MAGELLAN INTERNATIONAL CORPORATION'S PURCHASE ORDER NO'S. 208868 3,50 inch 16 ft 1 inch - 20 ft 0 inch	23355 kg	AISI 8620 AISI 8620H natural	ASTM A29-05 ASTM A322-07 ASTM A304 ASTM E709

CHEMISCHE ZUSAMMENSETZUNG - CHEMICAL ANALYSIS - COMPOSITION CHIMIQUE (%)

Schmelze Heat No Charge No	Gewicht Mass Poids [kg]	C	Mn	Si	P	S	Cr	Ni	Cu
48118 / 2012	23355	0.20	0.80	0.23	0.015	0.013	0.56	0.55	0.04
BO- cc blooms		Mo	Al	Sn	V	Ti	N	H	D.I. "
		0.194	0.021	0.004	0.005	0.0011	0.0061	1.70 ppm	1.97
		Ca							
		0.0017							

MECHANISCHE WERTE - MECHANICAL VALUES - QUALITES MECHANIQUES ASTM 370-10

Schmelze Heat No Charge No	Streckgrenze Yield point Rp0,2 [KSI]	Zugfestigkeit Tensile strength Rm [KSI]	Bruchdehnung Elongation A2 "	Brucheinschn. Contraction Z [%]	Schlagarbeit Energy of impact Lbs.ft.(inf.)	Brinell Hardness ASTM E10 HB											
48118 1/4 D	53	85	25,8	51,9		Mid radius 1/4:176 Surface: 149,162											
Jominy curve ASTM A 255/10:																	
in/16	1	2	3	4	5	6	7	8	9	10	12	14	16	20	24	28	32
HRC	47	46	42	37	32	30	28	25	24	23	22	21	20	18	17	16	15
Microcleanliness Rating ASTM E - 45/05:																	
	TYPE A	TYPE B	TYPE C	TYPE D													
	1,6	1,7	0,0	0,0	0,0	0,0											
Grain size ASTM E 112 - 5-8																	
Macrostructure Rating ASTM E 381/94: S - 1 R - 1 C - 1																	
Spectrotest 100%.																	
Ultrasonic inspection results SEP 1921/84 3C/c - satisfactory																	
Rolling reduction ratio = 21,3																	
Steel is free of Mercury.																	
Fully killed.																	
Steel is free any harmful radioactive contamination.																	
RADIO - ISOTOPIC ACTIVITY WAS CONTROLLED IN LADLE SAMPLE, IT WAS NO HIGHER THAN 100 BQ/KG.																	

ORIGIN CZECH REPUBLIC

Petr Skok
nezávislý oprávněný zástupce
unabhängiger berechtigter Vertreter
závod Kladno

Die obengenannten Erzeugnisse entsprechen den Bestimmungsvorschriften - Products conform with the prescription of order.

Der Werksachverständige - Expert: Reitmajerová Alena,

Der Sachbearbeiter der Qualitätskontrolle für Freigabe und Atteste, unabhängiger
berechtigter Vertreter

Kladno: 18.12.2012

Officer of Quality Inspection of Releasing and Attesting, independent authorized agent

2.8 x 2.265 S105
1 726
Q44-1

