





## HIGH TEMP METALS

SALES@HIGHTEMPMETALS.COM  
12500 FOOTHILL BLVD.  
SYLMAR CA 91342-6038  
PHONE: (818)362-5357  
FAX: (818)362-9884

**BATCH CODE**

OPEN

## PACKING LIST

ORDER NUMBER	ORDER DATE	PAGE
00124752	07/12/2019	1
CUSTOMER P.O.NUMBER		
SM-HIGHTEMP/100719		

S SUPER MATERIALS ONE MEMBER CO  
H 201/15 LE VAN VIET STREET,  
I HIEP PHU WARD,  
P DISTRICT 9  
HO CHI MINH CIT VIETNAM  
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S SMOM00  
O SUPER MATERIALS ONE MEMBER CO  
L 201/15 LE VAN VIET STREET,  
D HIEP PHU WARD  
DISTRICT 9  
HO CHI MINH CIT VIETNAM  
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SLS 1	SLS 2	LOCATION	SHIP VIA	PACKING LIST NO.	REQUESTED SHIP DATE	ACTUAL SHIP DATE
VAN		1	TNT SERVICE (AIR)		07/26/2019	07/27/2019
ITEM ID		UNIT OF MEASURE	BIN	ORDERED	SHIPPED	BACK ORDER
001 124752L605P0.375 L605(HS 25) NO. OF PCS: 1, TOT WGHT: 40 LBS AMS 5537J, UNS-R30605 .385/.426 x 6 x 48 SHEAR TOL. +.125/-0 HOT ROLLED, ANNEALED, DESCALED VIM ESR HEAT: 1860-5-1436 BUYR: Anh Bui		LBS		40.000	40.000	
002 CUT Cutting Charge		EACH		1.000	1.000	
003 PKG Packaging Charge		EACH		1.000	1.000	



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## CERTIFICATE OF COMPLIANCE

We certify that this material conforms to the applicable specifications as shown on this purchase order.

Customer	SUPER MATERIALS ONE MEMBER CO
Customer PO #	SM-HIGHTEMP/100719
HTM Work Order #	00124752
Quantity	40.000 LBS
Weight	LBS
Material Detail	L605(HS 25) NO. OF PCS: 1, TOT WGHT: 40 LBS AMS 5537J, UNS-R30605 .385/.426 x 6 x 48 SHEAR TOL. +.125/-0 HOT ROLLED, ANNEALED, DESCALED VIM ESR HEAT: 1860-5-1436 BUYR: Anh Bui

John Vulchev  
QC Certifications Clerk

07/27/2019

Date

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS									
Sales Order No Reference Commande Bestellungs Nr 815713001-0	Date Entered Date De Commande Bestelldatum 07/20/15	Customer Reference Reference Client Kundenbestelldaten 8248	Report No. Rapport No. Zeugnis Nr 20151007025	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 3					
Sold To • Client • Bestellanschrift HIGH TEMP METALS INC 12500 FOOTHILL BLVD SYLMAR CA 913426038 USA		Ship To • Destinataire • Bestellmenge HIGH TEMP METALS INC 12500 FOOTHILL BLVD SYLMAR CA 913426038 USA							
Specification • Spezifikation  AMS 5537, H; RR9000-SABRe; AMS 5759, L		Quantity Ordered Quantité Commandée Bestellmenge 2 PC	Quantity Shipped Quantité Expédiée Liefermenge 2 PC	Product Description • Description Produit • Material Beschreibung 0.395 (0.385/0.425) x 48 x 144 10.0 MM x 1219 MM x 3657 MM HAYNES(R) 25 ALLOY PLATE - Nadcap Materials Testing Accredited GE# 19762, S400 2/7/2014, S1000 12/4/2013, EN 10204 3.1, AS9100					

Chemical Analysis • Analyse Chimique • Chemische Analyse																		
Heat Number Numero De Cuille Charge Nr	Al	B	C	Cr-Ti (Nb-Ti)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W	
1860 5 1436			0.109		BAL	20.50		2.50	1.52		10.10	0.007	<0.002	0.25			14.80	BUTT END *01
1860 5 1436																		BUTT END *01

Certified By • Certifié Par • Bescheinigt Durch: Jessica Holt

Certification Technician

10/7/2015

Jessica J. Holt

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCT IN THE SUBJECT ENVIRONMENT. THE MATERIAL ASSURES THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, MODIFIED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT DATA VIOLATES THE TERMS AND CONDITIONS OF THE LISTED SPECIFICATIONS, MODIFIED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. SPECIFICATION MAKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUIRING MULTIPLE MATERIAL SPECIFICATIONS.

Sales Order No Reference Commande Bestellungs Nr 815713001-0		Date Entered Date De Commande Bestelldatum 07/20/15	Customer Reference Reference Client Kundenbestelldaten 8248	Report No. Rapport No Zeugnis Nr 20151007025	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 3
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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

CUSTOMER COPY  
Haynes International  
1020 West Park Avenue  
PO Box 9013  
Kokomo, Indiana, 46902



13042

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch				Tensile Test at Elevated Temperature • Essai De Traction A Hie.Temp.				Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch						
Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze		1% Yield Lim. Elast. A 1% 1% Streckgrenze	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EN % Dehnung	% RA	Test Essai Versuch Temp:	Stress Constrainte Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung	% RA
157000 PSI 151000 PSI		67000 PSI 66000 PSI	49 % 58 %	38 %	1(A)/L 1(A)/T									

Grain Size Grosseur De Grain Korngrösse				IGA		Corrosion Rate		Oxidation Rate		Charpy Impact Test			Creep Rupture			
Annealed Bardness Durete Recuit Gegluet Haerte	Aged Hardness Durete Vieilli Gegluet Haerte	Grain Size Predominant Grain Size	Recry. Grain Umery. Grain %	ALA	P&W Figure Number	Attack Depth	Uniformity	Corrosion	Test Method	Toughness Avg Ft. Lbs.	Toughness 1 Ft. Lbs.	Toughness 2 Ft. Lbs.	Toughness 3 Ft. Lbs.	Stress Constrainte Spannung PSI	Hours Heures Stunden	% Elong In % Allong EN % Dehnung
97 HRBW	1(A)	4						MPY								

1) 2781571301

10/7/2015

Certified By • Certifie Par • Bescheinigt Durch: Jessica Holt  
Certification Technician

*Jessica D. Holt*

13042

CUSTOMER COPY

**HAYNES**  
InternationalHaynes International  
1020 West Park Avenue  
PO Box 9013  
Kokomo, Indiana, 46902

## CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

Sales Order No Bestellungs Nr	Date Entered Date De Commande Bestelldatum	Customer Reference Reference Client Kundenbestellnr	Report No. Rapport No Zeugnis Nr	Pages of Pages Page de Pages Anzahl der Seiten
815713001-0	07/20/15	8248	20151007025	3 Of 3

MELT METHOD: ELECTRIC FCE/AOD/ESR. NO WELD REPAIRS PERFORMED. ROHS COMPLIANT.

COMPLIES WITH DFARS 252.225-7014 &amp; 225.7002-3(1)(B) WR 2.4964

MATERIAL ONLY MEETS CHEMISTRY REQUIREMENTS PER NACE MRO 103 SECTION 3.1.1.1.1

All tests and inspections have been performed and results meet specification requirements.

THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.

THIS MATERIAL WAS MELTED AND MANUFACTURED IN THE UNITED STATES.

When microstructure analysis is performed, the etchant used is H<sub>2</sub>O<sub>2</sub> and HCl. Samples were viewed at 100-500x magnification. Grain size evaluation is performed to the requirements of ASTM E112-96(2004)e2 Plate 1. Samples are prepared per ASTM E3-01. The material has been evaluated for alloy depletion.

No welding performed on this material.

This material was melted and manufactured in the United States.

Stress rupture conformance is based on periodic tests (tenth heat) as described in paragraph 4.2.2.

This material is capable of meeting the stress rupture requirements of AMS 5759.

This material conforms to all technical requirements of AMS 5759.

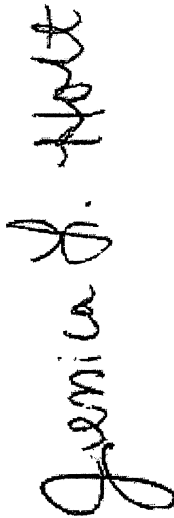
Mill Orders Used: 2781571301 (2 PC)

A) 2150 °F to 2250 °F

Method of Chemistry Analysis for Heat# 51436 BUTT END \*01: O.E. (P,Si), LECO (C,S), XARL LINFIT (Co,Cr,Fe,Mn,Ni,W);

Certified By • Certifié Par • Bescheinigt Durch: Jessica Holt  
Certification Technician

10/7/2015



# **HAYNES**

**International**

**Haynes International, Inc.**  
1020 West Park Avenue  
P.O. Box 9013  
Kokomo, Indiana 46904-9013

Tel: 765-456-6000  
FAX: 765-456-6905  
[www.haynesintl.com](http://www.haynesintl.com)

November 28, 2017

Mr. John Vulchev  
High Temp Metals  
12500 Foothill Blvd.  
Slymar, CA 91342-6038 USA

Dear John:

A new revision of AMS 5537 has been published which is now AMS5537™ Revision J. Any material that is certified by Haynes International, Inc. to AMS 5537 Revision H, also meets the requirements of AMS5537™ Revision J, with the possible exception of any marking which was done to Revision H.

Please let me know if you have any questions.

Sincerely,



Leslie Labig  
Senior Quality Engineer

cc: Larry Tuff  
Jose Rios  
Jeff Sipf