

## 2.750" Baker Male Adapter Ring



BGH Edelstahl Freital GmbH

BGH Edelstahl Freital GmbH Am Stahlwerk 1 01705 Freital

Earle M. Jorgensen Company

6201 Lumberdale  
77092 Houston, TX  
USAKunden-Bestell-Nr. P939654-453  
Customer order no.  
Cde. no. du client 506848BGH-Auftrags-Nr. 09328201/86148  
BGH works no.  
BGH référenceZeugnis-Nr. 252681  
Certificate no.  
No. de certificatBescheinigung über Werkstoffprüfung nach EN 10204  
Certificate of material tests according to EN 10204 3.1  
Certificat des essais des matériaux selon EN 10204Die Lieferung entspricht den vereinbarten Lieferbedingungen.  
Delivery in accordance with the agreed terms of delivery.  
La livraison correspond aux conditions de livraison convenues.Zeichen des Lieferwerkes Stempel des Werkstoffsachverständigen  
Trade mark Inspector's stamp  
Signe du fournisseur Poignon de l'inspecteur

Product Round bars, peeled										
Werkstoff / Quality 9Cr-1Mo (UNS K90841)										
Requirements ES-MA-2-R.E 2006 Rev. 920505 ES-MA 88-2 05/92 EMJ HT03 R.2 07/03 ES-MA-2-R Rev. E sec. 1 - 6, excluding sec. 6.3										
Beschulung und Maßnachprüfung Inspection and dimensional control Inspection et contrôle de dimension without objection				Brennprozess/Nachbehandlung Melting process/secondary refining Mode d'élaboration/traitement ultérieur E - LF/VD				Verwechslungsprüfung (spektralanalytisch) Identification test (spectral-analysis) Examination d'identification (analyse spectrale) without objection		
Pos. Item	Anzahl Quantity	Abmessung Dimension						Gewicht Weight	Schmelz-Nr. Heat-No.	
1	27	2.75" dia.						4852 kg	327475	
Schmelze Heat %	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	
327475	0,123	0,67	0,55	0,015	0,002	8,25	0,93	0,13	0,05	
Condition of heat treat hardened + tempered + stress relieved Traitement thermique 980°C 105'/Oil-oil + 660°C 210'/Luft-air + 610°C 6h/Luft-air (Bd/bd)										
Probe-Nr. Test-No.	Lage	Temp. °F	Rp0,2 ksi		Rm ksi	A4 %	Z %	Kerbschlagarbeit Impact value Ft-lbs	Probenform Shape of test piece Charpy-V	Hardt BHN/HRC Hardness
Soll/Req.	L	RT	>=80		>=95	>=20	>=20	>=15	32	<=235 <=22
	L	RT	<=110							
009FR4 /a	L	RT	82		111	27	69	56 64 55 0		
009FR9 /b	L	RT	84		113	27	69			
The test results of this MTR meet the requirements of the above mentioned specifications.										
We are ISO 9001/2000 registered by LRQA accredited by UKAS.										
reduction ratio: 36:1										
Anlagen End. Annex	US-certificate Hardness certificate				Freitst, den Place and date 29.06.2007			Abnahmebeauftragter Inspector representative Inspecteur de réception BERNDT		

a/27/07

506848

327475

R 300075

(5)

Kunden-Bestell-Nr. P939654-453  
Customer order no.  
Cde. no. du client 506848BGH-Auftrags-Nr. 093282-01  
BGH works no.  
BGH référenceZeugnis-Nr. 252681  
Certificate no.  
No. de certificat

Erzeugnisform	: Stab, rund
Product	: Round bars, peeled
Werkstoff/Quality	: 9Cr-1Mo (UNS K90941) charge: 327475
Abmessung/Dimension	: 2.75" dia.
Anzahl/Quantity	: 27                      Gewicht kg/Weight kg : 4852
Wärmebehandlungszustand	: vergütet + spannungsarmgeglüht
Condition of heat treat	: hardened + tempered + stress relieved
Traitement thermique	: 980°C 105' / Öl-oil + 650°C 210' / Luft-air + 610°C 6h / Luft-air (Bd/bd)
Prüfrichtlinie	
Specification	
US: nach ASTM/ASME A 388	
FBH (KSR) max. 2 mm	
Bearbeitungszustand	: geschält
Machining condition	: peeled
Prüfgerät	: Deutsch-STPS-Echograph 1155
Test equipment	
Prüfkopf	: 15xTS12WB4
Probe	
Kopplungsmittel	: Wasser
Coupling medium	: water
Prüfumfang	: vollständig
Extent of examination	: completely
Einschallrichtung	: senkrecht und in Winkelschallung 40°
Direction of incidence	: perpendiculair and oblique incidence 40°
Registr./Zuläss.-grenze	: Prüfung und Justierung erfolgten gemäß obiger Spezifikation.
Register/acceptance level	: Test and adjustment acc.to a.m.specification.
Befund	: Es wurden keine registrierpflichtigen Anzeigen ermittelt.
Result	: There have not been found any reportable indications found
Prüfdatum	: 05.06.2007
examination date	

Freital, den  
Place and date  
Lieu et date  
29.06.07Prüfer  
Testing operator  
Opérateur  
Fischer J.  
Stufe 2 EN 473Abnahmebeauftragter  
Inspector representative  
Inspecteur de réceptionJUNGKUNZ  
Level III SNT-TC 1AOberwacher  
Supervisor  
Surveillleur

Das Zeugnis wurde maschinell erstellt und ist auch ohne Unterschrift gültig.

This certificate was generated by data system it must not be signed for validity as well.  
Ce certificat a été établi sur système informatique et est valable sans signature aussi.



# Hardness Report Bar Surface for Grade 1.7386 (9 Cr 1 Mo)

Hardness test with EQUOTIP :

Values in HRC/BHN

Order Number: 093282/1

Test Number: 9FR

certificate: 252681

bar no.	bar end A	middle	bar end B
1	21,5/233	21/231	21/231
2	21,5/233	21,5/233	21,5/233
3	21,5/233	21,5/233	21,5/233
4	21/231	21/231	21/231
5	21,5/233	21,5/233	21/231
6	21,5/233	21,5/233	21,5/233
7	21,5/233	21,5/233	21,5/233
8	21,5/233	21,5/233	21,5/233
9	21/231	21/231	21/231
10	21/231	21/231	21/231
11	21/231	21/231	21,5/233
12	21/231	21/231	21,5/233
13	21/231	21,5/233	21,5/233
14	21/231	21,5/233	21,5/233
15	21,5/233	21,5/233	21,5/233
16	21,5/233	21,5/233	21,5/233
17	21,5/233	21,5/233	21,5/233
18	21,5/233	21,5/233	21,5/233
19	21,5/233	21,5/233	21,5/233
20	21,5/233	21,5/233	21,5/233
21	21,5/233	21,5/233	21,5/233
22	21/231	21,5/233	21,5/233
23	21/231	21,5/233	21,5/233
24	21/231	21,5/233	21,5/233
25	21/231	21,5/233	21,5/233
26	21/231	21,5/233	21,5/233
27	21/231	21/231	21,5/233



# CERTIFICATE OF TEST

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Certification Date  
2-OCT-2007

## CUSTOMER ORDER NUMBER

200314

6201 LUMBERDALE  
HOUSTON TX 77092

Invoice Number  
T577611

## CUSTOMER PART NUMBER

Ship# T577696

<b>SOLD TO:</b>	B AND T OILFIELD PRODUCTS	<b>SHIP TO:</b>	B AND T OILFIELD PRODUCTS
	421 E MAIN STREET		421 E MAIN STREET
	BROUSSARD LA 70518		BROUSSARD LA 70518

Description: 9CR-1MO HR HT RT BAR - ES-MA-2-7 - EMJ HT03  
2-3/4 RD X 20' R/L  
HEAT: 327475  
ITEM: 506848  
Line Total: 5364 LB

Specifications:  
HES ES-MA-2-7

### CHEMICAL ANALYSIS

C	SI	MN	P	S	CR	MO	NI
0.123	0.67	0.55	0.015	0.002	8.25	0.93	0.13
CU							
0.05							

RCPT: R300073  
MILL : BGH SPECIALTY STEEL INC  
COUNTRY OF ORIGIN : GERMANY

### MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED	HARDNESS
	KSI	KSI	IN 02 IN	IN AREA	BHN
	82.0	111.0	27.0	69.0	231

### COMMENTS

REDUCTION RATIO 36:1  
TENSILE SPECIMENT SIZE .500"  
TEST PIECE IS A PROLONGATION OF BAR  
HEAT TREATMENT  
HARDNED 980 DEG C OIL  
TEMPERED 560 DEG C 210/LUFT- AIR  
STRESS RELIEVED 610 DEG C 6H/LUF-AIR

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

MICHAEL BOSCH

MANAGER, QUALITY ASSURANCE