

## 3.688 BAKER DOUBLE MALE ADAPTER



DAYE SPECIAL STEEL CO., LTD.  
NO. 316 HUANGSHI AVENUE, HUANGSHI, HUBEI, CHINA PC:435000  
**QUALITY CERTIFICATE**  
ACC TO EN10204 3.1



INVOICE NO: GBUSA14056FEAC

DESCRIPTION OF GOODS: HOT ROLLED AND QT STEEL ROUND BARS

FORTIS ALLIANCE PO NO.: 141-4760, EA PO#: 1043926 OP, EA SPEC: EAGL-600 REV.5, HTS CODE: 72283090

Grade	Batch No.	Heat No.	Size	Pieces	Bundles	Weight (MT)	Total Length(FT)	Manufacture Process	Delivery Condition
9Cr-1Mo 80KSI	H614104050	40509620	3.75"	14	3	4.322	321.538	EAF+LF+VD+HC	quenched and tempered

Chemical Composition (Wt %)																											DI	Hard factor	CEV /CEQ
	C	Mn	Si	P	S	Cr	Ni	Mo	Cu	W	Al	V	Nb	Ti	Ca	B	As	Sn	Pb	Sb	Zn	Zr	Co	Cd	[N]	[O]	[H]		
Min	0.09	0.30	0.25	0	0	8.00	0	0.90	0																				
Max	0.15	0.60	1.00	0.020	0.010	10.00	0.50	1.10	0.30																				
Ladle	0.10	0.44	0.34	0.013	0.004	8.78	0.21	0.91	0.03																				
Product1																													
Product2																													

Macrostructure Examination (Level)				Non-metallic inclusion (Level)								K4 Method Oxides	Ds	Microstructure		Jominy Test (ASTM A255 HRC-1/16 inch)						Hydrostatic Pressure Test			Drift result	Dimensional inspection	Visual examination
S	R	C		A	H	T	H	T	H	T	H			Grain Size	Decarburizing Layer							time	pressure	conclusion			
														ASTM E112	pcs	mm											
														8-7												good	good

Mechanical Properties						Quadrant hardness				Hardness(ASTM A370)				Charpy Impact Test(ASTM E23)											
Yield Strength	Tensile Strength	YS/TS	Elongation	Reduction Area	Mid WALL	ID	OD	max. deviation		1/2 R from surface		Surface	Longitudinal 10*10(mm)						Charpy Impact Test(ASTM E23)						
(KSI)	(KSI)		A(%)	Z(%)	(HRC)	(HRC)	(HRC)			HRC		(HBW)	14.00(°F)	Shear	Lateral Expansion	73.40(°F)	Shear	Lateral Expansion	(°F)	Shear	Lateral Expansion	(°F)	Shear	Lateral Expansion	
85.695	Rp0.2	106.140	25.0	74						20.0		222	(ft-lbs)	(%)	(mm)	(ft-lbs)	(%)	(mm)	(ft-lbs)	(%)	(mm)	(ft-lbs)	(%)	(mm)	
													53	100	0.86	96	100	1.34							
89.320	Rp0.5												37	100	0.62	93	100	1.18							
													30	100	0.48	104	100	1.52							

Mechanical Properties Inspection			Depth of specimens	Gauge Length	Tensile Diameter	Reduction Ratio	customer's specification	QTC	Size	Radio-activity	Residual magnetic-field	NDT(Non -destructive Test)											
Standard	Location	Direction										Ultrasonic Test					Eddy Current Test			Magnetic Particle Test			
												standard	testing level	external imperfection	internal imperfection	conclusion	standard	testing level	conclusion	stand-ard	testing level	conclusion	
ASTM A370	1/2 R from surface	Longitudinal		4D	0.5"	36.2					ASTMA3 88	API6A PSL 3			good								

Normalizing			Quenching			Temperature of Quench Media		Tempering			Furnace hearth survey & calibration		Stress Relieve			Quality System
Temperature(°C)	Time(min)	Cooling Method	Temperature(°C)	Time(min)	Cooling Method	Starting(°C)	Finishing(°C)	Temperature(°C)	Time(min)	Cooling Method	Time	Standard	Temp(°C)	Time(min)	Process	ISO9001:2008, ISO/TS 16949
			930	113	water cooling	25	29	665	226	air cooling						

Note: (1) No impermissible macro-structural defects, such as flakes, subsurface bubbles and pipes are available. This material is free from mercury and radioactivity. No welding repair.

(2) When there is any complaint, you are kindly requested to mark the Steel Grade, Heat No., Size, Delivery Date, Causes and reserve the material in the condition of delivery.

(3) Our company's quality management system has been certified by TÜV SÜD for fulfilling all requirements of ISO9001:2008, ISO/TS 16949.

Non-straightening

Signature of quality assurance manager: LiuGuangHui

Date: 2014-07-28