



P.O. BOX 55710
 HOUSTON, TEXAS 77255-5710
 (713) 685-4351 PHONE
 (713) 685-3222 FAX
 www.tsk-tube.com

Certificate Of Tests

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02/06/2002

Sold To 00081758
 CCC STEEL GMBH
 PALMILLE 67
 D-22767
 HAMBURG TX

SO19438
 Ship To: 00081759
 CCC STEEL
 C/O BEST BORDER CARGO
 1502 ISLAND STREET
 LAREDO TX 78041

Invoice:

Purchase Order: VERBAL

Item Number	Description	
3B8250L21P	ASTM A53B 8-5/8" X.250" WALL(22.38#) LAC, 21'UF, PE	22.3800 LB

 * Heat #: 910552

Chem Analysis (%):

	C	Mn	P	S	Ni	Cr	Cu	Mo	Si	Al	V	Nb
L -	0.160	0.730	0.019	0.015	0.010	0.010	0.010	0.000	0.250	0.057	0.000	0.000
C -	0.202	0.740	0.020	0.014	0.008	0.015	0.022	0.013	0.248	0.055	0.001	0.002
C -	0.196	0.750	0.021	0.015	0.009	0.016	0.022	0.013	0.246	0.055	0.002	0.002

Mechanical Properties (ksi):

YS: 48.20 TS: 66.40 WTS: 73.30 EL: 37% HRB : 80

 * Heat #: 910586 ✓

Chem Analysis (%):

	C	Mn	P	S	Ni	Cr	Cu	Mo	Si	Al	V	Nb
L -	0.150	0.850	0.018	0.014	0.010	0.010	0.010	0.000	0.280	0.047	0.000	0.000
C -	0.174	0.760	0.010	0.009	0.007	0.011	0.012	0.008	0.273	0.040	0.001	0.002
C -	0.184	0.760	0.010	0.010	0.007	0.011	0.013	0.008	0.274	0.040	0.001	0.002

Mechanical Properties (ksi):

YS: 53.20 TS: 68.70 WTS: 71.60 EL: 38% HRB : 82

 * Heat #: 917702

Chem Analysis (%):

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Customer Purchase Order: VERBAL

* Heat #: 917702

	C	Mn	P	S	Ni	Cr	Cu	Mo	Si	Al	V	Nb
L -	0.140	0.850	0.025	0.019	0.010	0.010	0.010	0.000	0.400	0.012	0.000	0.000
C -	0.116	0.960	0.035	0.016	0.051	0.042	0.023	0.028	0.459	0.011	0.002	0.003
C -	0.127	0.990	0.036	0.017	0.053	0.043	0.024	0.029	0.470	0.011	0.001	0.004

Mechanical Properties (ksi):

YS: 58.00 TS: 73.50 WTS: 74.10 EL: 31% HRB : 88

* Heat #: 917703

Chem Analysis (%):

	C	Mn	P	S	Ni	Cr	Cu	Mo	Si	Al	V	Nb
L -	0.150	0.770	0.022	0.016	0.010	0.010	0.010	0.000	0.310	0.033	0.000	0.000
C -	0.133	0.800	0.027	0.016	0.012	0.014	0.018	0.013	0.266	0.035	0.001	0.003
C -	0.137	0.830	0.028	0.017	0.013	0.015	0.018	0.013	0.270	0.036	0.001	0.004

Mechanical Properties (ksi):

YS: 52.10 TS: 63.10 WTS: 67.00 EL: 36% HRB : 76

* Heat #: 922456

Chem Analysis (%):

	C	Mn	P	S	Ni	Cr	Cu	Mo	Si	Al	V	Nb
L -	0.160	0.790	0.024	0.012	0.010	0.010	0.010	0.000	0.270	0.045	0.000	0.000
C -	0.179	0.750	0.019	0.009	0.007	0.017	0.014	0.008	0.250	0.035	0.001	0.002
C -	0.179	0.740	0.019	0.009	0.007	0.017	0.014	0.008	0.253	0.036	0.001	0.002

Mechanical Properties (ksi):

YS: 57.30 TS: 71.20 WTS: 75.00 EL: 31% HRB : 84

* Heat #: 922501

Chem Analysis (%):

	C	Mn	P	S	Ni	Cr	Cu	Mo	Si	Al	V	Nb
L -	0.160	0.850	0.024	0.011	0.010	0.010	0.010	0.000	0.260	0.069	0.000	0.000
C -	0.202	0.760	0.017	0.010	0.008	0.017	0.013	0.009	0.260	0.045	0.001	0.002
C -	0.228	0.770	0.015	0.011	0.008	0.016	0.013	0.009	0.265	0.052	0.001	0.002

Mechanical Properties (ksi):

YS: 58.70 TS: 71.66 WTS: 75.00 EL: 38% HRB : 84
 HYDROSTATIC TEST PRESSURE (psi): 1.830

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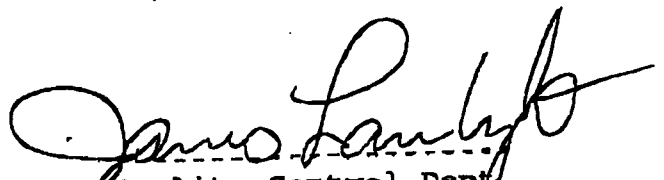


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Comments

1.5" TRANSVERSE STRIP SPECIMEN.
THIS MATERIAL MEETS ASTM A53 GRADE B SPEC.
THIS MATERIAL MEETS ASME SA-53B SPEC.
THIS MATERIAL IS ERW PIPE.
FLATTENING TEST PASSED.
THIS MATERIAL WAS MANUFACTURED IN THE U.S.A..
THIS MATERIAL IS IN COMPLIANCE WITH NACE STANDARD MR0175.
ALL STANDARDS ARE LATEST REVISION

The above analyses and tensile properties
are correct to the best of my knowledge
and belief.


Quality Control Dept