

4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 09

Item 1

Quantity Description 100

1 3M 90EL T

A/SA105

Chemical Composition

Ladle

Product

CR CU 0.190 0.05 0.130

SI S 0.019

Tensile PSI

80,000

Carbon Equivalency:

0.20 Ladle

0.38

MN

1.00

Yield PSI

48,750

0.004

Elong % 28.20

MO

0.010

RA % 62.30

NB

0.015

Hardness 153 BHN

0.009

156 BHN

AS FORGED

5100 WESTHEIMER ROAD

SUITE 200

Sold To: PLESA STEEL INC

HOUSTON TX 77056

MTR #:

262,632

PO #: 119

Sales Order #: C001313964

Date: 10/07/2013

Certified Material Test Report

Heat Code: 58469

0.04

Marie Dehmer



fannfacturer of Pioing and Pressure Vessel Component

4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material:

A/SA105 09

Item 6

Quantity

Description 3/4 6M 90EL S

A/SA105

Chemical Composition

Ladle

Product

0.200

0.020

CR S

CU 0.06 0.050 SI 0.21 0.003

Carbon Equivalency:

Ladle

MN

0.39

1.03

Tensile PSI 77,649 Yield PSI 50,234 Elong % 30.15

0.000

RA% 61.09

0.000

Hardness 144 BHN

0.008

0.02

Sold To: PLESA STEEL INC

SUITE 200

262,632

119

MTR#:

PO#:

Heat Code: 58620

Sales Order #: C001313964

5100 WESTHEIMER ROAD

HOUSTON TX 77056

Certified Material Test Report

BHN 144

AS FORGED

Marie Dehmer



4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 09

Quantity

Description 11/2 3M 90EL S

A/SA105

Item

100

Chemical Composition

Carbon Equivalency:

s

0.020

Ladle

Product

CR 0.193

0.06 SI 0.19

Ladle

0.160 V

ÇΨ

0.003

0.40

1.04

Tensile PSI 79,664

Yield PSI 50,474

Elong % 32,40

0.009

RA% 61.12

NB

0.015

NI

0.05

Hardness 141 BHN

Sold To: PLESA STEEL INC

SUITE 200

262,632

119

MTR#:

PO #:

Heat Code: 58732

Sales Order #: C001313964

5100 WESTHEIMER ROAD

HOUSTON TX 77056

Certified Material Test Report

147 BHN

AS FORGED

Marie Dehmer



4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 09

Item 5

Quantity 100

Description

3/4 3M 90EL S

A/SA105

CT

v

CU

0.000

0.070

0.004

Chemical Composition

Carbon Equivalency:

С

SI 0.00

0.000

Ladle

Product

CR 0.213 0.04 5

SI 0.018 0.21

Ladle

CR

0.00

0.000

0.41

MN 0.00

MN

1.06

0.000

0.00 0.000

NI

0.02

Sold To: PLESA STEEL INC

SUITE 200

262,632

119

MTR#:

PO #:

Heat Code: 58801

Sales Order #: C001313964

5100 WESTHEIMER ROAD

HOUSTON TX 77056

Certified Material Test Report

Hardness

0.012

0.000

Product

Tensile PSI 77,997 Yield PSI 51,245 Elong % 29.85

MO

MO

0.005

RA% 63.76

NB

0.014

141 BHN

147 BHN

AS FORGED

Sold To: PLESA STEEL INC

SUITE 200

262,632

119

MTR#:

PO #:

Heat Code: 58961

Sales Order #: C001313964

5100 WESTHEIMER ROAD

HOUSTON TX 77056

Certified Material Test Report



fanufacturer of Piping and Pressure Vessel Componen

4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 09

Item Quantity Description
2 100 1/2 3M 90EL T
A/SA105

Chemical Composition

Ladle CR CU MN NВ NI 0.200 0.05 0.040 0.004 0.013 0.02 0.009 S SI ٧ 0.019 0.23 0.003

Carbon Equivalency: Ladle 0.39

 Tensile PSI
 Yield PSI
 Elong %
 RA %
 Hardness

 Product
 77,647
 50,325
 32.60
 62.36
 141 BHN
 144 BHN

AS FORGED

Marie Dehmer



fanufacturer of Pinink and Pressure Vessel Component

4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 09

Item

Quantity

Description 11/2 3M TEE T

A/SA105

Chemical Composition

Ladle

Product

C 0.200

0.019

s

CR 0.03 SI

CU 0.090 v

0.21 0.003

Carbon Equivalency:

Ladle

78,424

Tensile PSI

Yield PSI

50,320

MN

0.39

1.02

Elong % 30.75

MO

0.007

RA% 62.56

NB

0.015

Hardness 144 BHN

0.007

147 BHN

AS FORGED

Sold To: PLESA STEEL INC

5100 WESTHEIMER ROAD

SUITE 200

HOUSTON TX 77056

MTR#:

262,632

PO #: 119

Sales Order #: C001313964

Date: 10/07/2013

Certified Material Test Report

Heat Code: 59021

NI

0.04

Marie Dehmer



fanufacturer of Pining and Pressure Vessel Componen

4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 11

Item 8

Quantity

Description 1/2 6M TEE T

A/SA105

CU

0.080

Chemical Composition

Ladle

Product

CR 0.200 0.04

Tensile PSI

77,083

S 0.019 SI

0.22 0.003 Ladle

0.39

Yield PSI

48,368

MN

1.01

Elong %

31.45

0.006

RA % 62.80

0.012

Hardness 141 BHN

0.010

0.04

Sold To: PLESA STEEL INC

SUITE 200

262,632

MTR#:

PO#: 119

Sales Order #: C001313964

Heat Code: 59087

5100 WESTHEIMER ROAD

HOUSTON TX 77056

Certified Material Test Report

147 BHN

AS FORGED

Carbon Equivalency:

Marie Dehmer



familiacturer of Piping and Pressure Vessel Component

4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 11

Item 9

Quantity

Description

2 X2 X 11/2 3M TEE T

CÜ

A/SA105

Chemical Composition

Ladle

Product

CR 0.210

Tensile PSI

74,465

SI 0.022

0.02 0.040

0.21 0.003 Ladle

Carbon Equivalency:

S

Yield PSI Elong % 49,433

MN

0.40

1.06

33.70

MO

0.003

RA% 63.04

NR

0.014

Hardness 139 BHN

0.006

NI

0.02

Sold To: PLESA STEEL INC

SUITE 200

262,632

119

MTR#:

PO#:

Heat Code: 59108

Sales Order #: C001313964

5100 WESTHEIMER ROAD

HOUSTON TX 77056

Certified Material Test Report

139 BHN

AS FORGED

Marie Dehmer



famulachurer of Pining and Pressure Vessel Component

4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 11

Item 3

Quantity

Description

2 3000 HOT-DIP 90EL T

CU

0.060

A/SA105

Chemical Composition

Carbon Equivalency:

C

Ladle

Product

CR 0.200 0.06

SI 0.020

Tensile PSI

77,265

0.19 0.004

Ladle

Yield PSI

48,769

1.03

0.39

Elong % 31.30

0.007

RA % 63.04

0.015

Hardness 147 BHN

0.006

0.03

Sold To: PLESA STEEL INC

SUITE 200

262,632

119

MTR#:

PO#:

Heat Code: 59163

Sales Order #: C001313964

5100 WESTHEIMER ROAD

HOUSTON TX 77056

Certified Material Test Report

150 BHN

AS FORGED

Marie Dehmer



Innufacturer of Pining and Pressure Vessel Component

4404 Haygood St - Houston, TX 77022 Phone: 713-695-3633 Fax: 713-695-3528 A Bonney Forge Company

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Material: A/SA105 11

Item 10

Quantity Description

50

1 3M UNAR T

A/SA105

Chemical Composition

Ladle

CR CU MN 0.190 0.10 0.190

8 SI 0.019 0.22 0.003

Carbon Equivalency:

Ladle

0.41

0.030

MO

0.002

0.09

Sold To: PLESA STEEL INC

SUITE 200

262,632

MTR #:

PO#: 119

Sales Order #: C001313964

Heat Code: MIAR

5100 WESTHEIMER ROAD

HOUSTON TX 77056

Certified Material Test Report

0.012

Product

Tensile PSI 81,000 Yield PSI 46,900

Elong % 29.00 RA% 56.70 Hardness 167 BHN

170 BHN

HOT ROLLED