

Chart Heat Exchangers L.P.
Inspection & Test Report

Stacking & Brazing

Cell 4

Sales Order # 509.9-1.3

Module # _____

Manufacturing # 15771B-1

Operation

Instruction

Operator
Clock #

Date &
Inspector
Initials

W/H Points
Int & Date

1. STACKING ASSEMBLY

WI9-040-002

Layer #1 DE

WI10-02

77544 46322
46463 46334 TR 3-4-05

Layer #2 AC

WI10-02

77544 46322
46463 46334 TR 3-4-05

Layer

WI10-02

77544 46322
46463 46334 TR 3-4-05

Layer

WI10-02

Layer

WI10-02

Layer

WI10-02

Layer

WI10-02

Layer

WI10-02

Layer

WI10-02

Layer

WI10-02

Half Primary Stacking & Squareness

WI10-02

75788 / 75403
46417 / 46445 TR 3-4-05

Primary Stacking & Squareness

WI10-02

46409 / 46420 / 46471 TR 3-7-05

Compression & Dimensional Record

46426 / 46422

Braze Core / Module

Date 03/08/05

46394

Fixture Removal / Dimensional After Brazing

Date 03/10/05

75352 / 75403

Header Inspection Log									
Header Assy. Item #	Stream Identification	Header Body Trace	Sales Order #			509.9-13		X-Ray #	A.I. Review Initials & Date
			End Piece Trace	Nozzle Trace	Misc. Material Trace	Final Insp. Initials & Date	X-Ray Initials & Date		
4402	A-IN/OUT	S-472-C	S460C	T-128-C	N/A	WOODY 3/16/2005			AJH 3-16-05
4404	B-IN	S472C	S446C	T119C		JL 3-17-05			HAL 3-17-05
4405	B-OUT	S472C	S446C	T119C		JL 3-17-05			HAL 3-17-05
4406	C-IN	S472C	S446C	T128C		JL 3-17-05			HAL 3-17-05
4407	C-OUT	S472C	S409C	T128C		JL 3-17-05			HAL 3-17-05
4408	D-IN/E-IN	S466C	S461C	S472C		JL 3-19-05			HAL 3-18-05
4411	D-OUT/E-OUT	S466C	S461C	S472C		JL 5-18-05			AJH 3-18-05
4409	SPLITTER PLATE 2PCS				S448C	JL 3-18-05			



Chart Heat Exchangers
Post Braze
Inspection and Test Report

National Board Number:

5130

Job Number/Serial Number 509.9-13

Drawing Number: 15771A

Mfg. Number: 15771B-1

Review of Design Calculations, Assembly Drawings and I&T Report

QC Review and approval of ITR: KIR

Date: 2/18/05

AI Review and acceptance of ITR: [Signature]

Date: FEB 18 2005

General Documentation

Nameplate Verification

QC Inspection	Date	Authorized Inspector	Date
SV	3-31-05	[Signature]	3-30-05

General Operations

Centerline Layout
Weld and Inspect Port Posting

Emp #	Date	QC Insp	Date	AI Init & Date
75519	3-12-05			
117	3-13-05			3-19-05

Header Fit-up and Inspection

Header	* AI Hold (H)	Clean Check / Header Fit-up (Stamp # & Date)	Oxygen Service (QC Inspection)	Splitter Plate (LPT if T > .50")				
		Visual Inspection before fit up	Black Light	LPT before & after weld				
A-In	12/13	20 3-20-05	QA					
A-Out	12/14	20 3-19-05	QA					
B-In		31# 3-18-05						
B-Out		31# 3-18-05						
C-In		31# 3-18-05						
C-Out		31# 3-18-05						
D-In	12/14	3 3-21-05		TL				
D-Out	12/14	20 3-21-05		TL				
E-In	12/14	51-40-3-21-05		TL				
E-Out	12/14	20 3-20-05		TL				

AI to review header welds prior to fit-up of inactive vent or pan headers. LPT header welds if specified on assembly drawings

Pre-hydro Inspection and Tests

	Emp #	Date	QC Insp	Date	AI Init & Date
1st Air Test	46341	3-23-05			
Support angle fit-up	46341	3-23-05			
Visual Inspection, final welds (Weld Check)			TL	3-23-05	3-30-05
Dimension Check			TL	3-23-05	
LPT complete per drawing requirement			TL	3-24-05	

Thermocouple Layout for Vacuum Drying

Layer No: 64/27 Stream No: E TC Located 36" from top of core between Bout/Cin header

if under Bout header weld - purge dry -
* splitter plates

Pretest With Water

Stream Identification	Stream Test Pressure (PSIG)	Supervisor Initial and Date	Testor Employee # & Date	Inspector or 2nd Testor Employee # and Date	AI Hold Point Init & Date
D	44	3/25/05	46447 3-25-05	SV 3-25-05	
E	44		46447 3-25-05	SV 3-25-05	

Core Drain and Dry

Drying Procedure: Manual (M) or Automatic (A)

M

Emp #

Date

Verification of core dryness.

75519

3-26-05

Pneumatic and Leak Test

Stream Identification	Pneumatic Test Pressure (PSIG)	Leak Test Pressure (PSIG)	Testor Emp # and Date	Inspector or 2nd Testor Emp# and Date	Internal Leak Test Emp # and Date	External Leak Test Emp# and Date	AI Hold Point Init & Date
A	218	145	46424	REO 3-28-05	✓OK	✓OK	3-28-05
B	218	145	46424	REO 3-28-05	✓OK	✓OK	3-28-05
C	218	145	46424	REO 3-28-05	✓OK	✓OK	3-28-05
D	32	29	46424	REO 3-28-05	✓OK	✓OK	3-28-05
E	32	29	46424	REO 3-28-05	✓OK	✓OK	3-28-05
TUV							
A	218	145	46424	REO 3-28-05	✓OK	✓OK	3-28-05
B	218	145	46424	REO 3-28-05	✓OK	✓OK	3-28-05
C	218	145	46424	REO 3-28-05	✓OK	✓OK	3-28-05
D	32	29	46424	REO 3-28-05	✓OK	✓OK	3-28-05
E	32	29	46424	REO 3-28-05	✓OK	✓OK	3-28-05

Final Inspection

Emp # Date QC Insp Date

Helium leak test
 Header clean check inspection
 Shipping pressure and labeling
 Final inspection
 Crate check(Tester)
 Loose parts verification
 ITR review and return to QC Office

46416	3-28-05		
46416	3-30-05		
46447	3-31-05		
46447	3-31-05		
46421	3-31-05		