#9 Boiler 2615

8/12/96 96

Cleaver BROOKS AIR/Steam ATOM.

Model # CB. 608-408 DATE 5/27/81
SERIAL # L-70773
MAX PRESSure - 150 PSI
INPUT 16738088 BTU/HR
Oil GPH 111.5

208 Volts 3 Ph. 60 HZ. 71 Amps.
MINIMUM CIRCUIT Amps. 79
Blower motor 15 HP.
AIR-COMP motor 5 H.P.
Oil Heater 7.5 KW
Oil pump motor
208 Volts 3 Ph. 60 HZ 3.5 Amp.

Oil Fired Boiler ASSEMBLY
NO. S 71805 4D #6 Oil.

INSPECTION REPORT-BOILERS
NAVFAC 9-11014/41 (3/67)
Supersedes NAVDOCKS 2544
S/N 0105-LF-004-0000

DATE OF INSPECTION: 16 July 81

TYPE OF INSPECTION: A ☐ INTERNAL & EXTERNAL B ☐ INTERNAL & EXTERNAL WITH PRESSURE TEST C ☐ OPERATIONAL

1. FROM: BASE MAINT. OFFICER, CAMP LEJEUNE, N. C.

2. TO: NAVFACENGCOM, NORFOLK, VA.

14. CERTIFICATE ISSUED ☐ YES ☒ NO

15. BOILER INSPECTOR: Jesse L. Sellers

NAVY OR NATIONAL BOARD NO.: NAVFAC 325

16. REASON FOR NOT ISSUING CERTIFICATE: This unit was replaced with new boiler contract no. 79-4484. New unit will retain property no. 9.

BOILER DATA

3. MANUFACTURER: ORR & SEMBOWER

4. PROPERTY NO.	5. MFG. SERIAL NO.	6. MFG. MODEL NO.
9	543500 5	3035501
7. BUILDING NO.	**8. YEAR BUILT**	**9. CAPACITY**
2615	1954	12,000 #/HR

10. FUEL (Check): ☐ COAL ☒ OIL ☐ GAS

11. PRESSURE: DESIGNED ~~151~~ psi; OPERATING ~~100~~ psi; TEST ~~Hyd~~ ~~225~~ psi

12. FEED WATER TREATMENT: ☐ SATISFACTORY ☐ UNSATISFACTORY

13. TYPE: ☐ WATER TUBE ☒ FIRE TUBE ☐ C. I.

17. BOILER USE: EXPORT

18. COMBUSTION CONTROL (Mfg. Name): FIREYE

19. COMBUSTION: _____ % CO_2 _____ % EXCESS O_2

20. FLUE GAS TEMPERATURE: AFTER BOILER _____ °F ; AFTER HEAT TRAP _____ °F

SAFETY DEVICES

SAFETY VALVES

21. MANUFACTURER	22. NUMBER AND SIZE	23. PSI SETTING	24. CONDITION
LONERGAN	2 - 2"	120 - 125	—

STEAM PRESSURE GAUGE

25. MANUFACTURER: ASHCROFT

26. CORRECTIONS: WATER LEG CONSTANT _____ psi; OTHER _____ psi

27. REASON IF NOT TESTED

FIRING EQUIPMENT

ITEM	IN SERVICE	ALTERNATE
28. MANUFACTURER	ORR & SEMBOWER	
29. TYPE	GUN & NOZZLE - Steam & AIR ATom	
30. FUEL GRADE	#6	

31. INSPECTOR'S COMMENTS

32. ATTACHMENT(S) (Check): ☐ COPY OF INSPECTOR'S REPORT ☐ SPECIAL COMMENTS

33. SIGNATURE: R. M. Dillon

BY DIRECTION

★ U. S. GOVERNMENT PRINTING OFFICE: 1978-604-467

L-2524

UNIT L-70773 MODEL CB-400, 150 psi, stm.

S.O. 98438 PART NO. 524-1245

FORM P-2 MANUFACTURERS' DATA REPORT FOR ALL TYPES OF BOILERS EXCEPT WATERTUBE

As Required by the Provisions of the ASME Code Rules

C25-1974A 6/75

1. Manufactured by Cleaver-Brooks Division of Aqua-Chem, Inc., Milwaukee, Wisconsin LEBANON, PA PLANT
(Name and address of manufacturer)

2. Manufactured for BUILDING 2615, MARINE CORP BASE, CAMP LEJEUNE, NC
(Name and address of purchaser)

3. Location of Installation BUILDING 2615, MARINE CORP BASE, CAMP LEJEUNE, NC
(Name and address)

4. Type Internally Fired (HRT, etc.) Boiler No. 76383 (Mfgr's Serial No.) N/A (CRN) 524-1245 (Drawing No.)

51257 (Nat'l. Board No.) Year Built 19 81

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section I, 19 80 (Year) and Addenda to SUMMER, 1980 (Date).

Remarks: Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report: NONE
(Name of part, item number, mfgr's name and identifying stamp)

6. Boiler Shells or Drums: No. 1 Dia. 96" Length 134" Dia. _____ Length _____

7. Shell Plates SA-515-70, 1/2"
(For each Shell or Drum state: Material Specification No. & grade, nominal thickness)

8. Longitudinal Joint(s) Welded (Seamless, Welded) Joint Efficiency 90% (As compared to Seamless)

9. Heads NONE
(Material Specification No.; Thickness—Flat, Dished, Ellipsoidal—Radius of Dish)

10. Girth Joint(s) Welded (Seamless, Welded) No. of Shell Courses 2

11. Tube Sheet SA-285-C, 5/8" (Mat'l Spec., Grade, Thickness) Tube Holes 2.525" (Dia.)

12. Boiler Tubes: No. 273 SA-178-A (Mat'l. Spec., Grade) Straight (Straight or Bent)

Dia. 2-1/2" Length 134-1/2" (If various, give max. & min.) Gauge .105" (or thickness)

13. Furnace No. 1 Size 45" O.D. (O.D. or W x H) Length, each section _____ Total 134-1/4"

Type Corrugated
(Plain, Adamson, Ring Reinforced, Corrugated, Combined or Stayed)

SA-285-C, .440" (Mat'l Spec., Grade, Thickness) Seams: Type Welded (Seamless, Welded)

14. Staybolts: No. NONE Size N/A
(Diam., Mat'l. Spec. Grade Size Telltale, Net Area)

Pitch N/A (Hor. and Vert.) Max. AWP N/A psi.

15. Stays or Braces

Location	Material Spec. No.	Type	No. & Size	Max. Pitch	Total Net Area	Fig. PFT-32 L/1	Dist. Tubes to Shell	Area to be Stayed	Max. A.W.P. psi.
(a) F.H. above tubes	SA-31-B	Diag	*	8-3/4	11.7816	1.09	24-¼	905	154
(b) R.H. above tubes	SA-31-B	Diag	*	8-3/4	11.7816	1.09	24-¼	905	154
(c) F.H. below tubes	N/A								
(d) R.H. below tubes	N/A								
(e) Through stays	N/A					*12 @ 1-½"			
(f) Dome braces	N/A								

16. Other Parts. 1. Water Column Assy. 2. Aux. Water Column Assy.
(Brief Description—i.e. Dome, Boiler Piping, etc.)

1. Threaded Pipe SA-106-B 1-¼" & ½" Sch. 80 M.A.W.P. 150 PSI
2. Threaded Pipe SA-106-B 1" Sch. 80 M.A.W.P. 150 PSI
3. Other Pressure Piping installed by Contractor
(Mat'l. Spec., Grade, Size, Material Thickness, Max. AWP)

KUNKLE 9831 5 13,800 LBS/HR
SET 150 9831

Form P-2 (Back)

17. Openings: (a) Steam 1 @ 6" 300# Flg. (No., Size, and Type) (b) Safety Valve 2 @ 3" NPT (No., Size, and Type)

(c) Blowoff 2 @ 2" NPT Bottom ℄ (No., Size, Type, and Location) (d) Feed 2 @ 2-1/2" NPT, R & L Side (No., Size, Type, and Location)

(e) Manholes: No. 1 Size 11" x 15" Location Shell – Ring

(f) Handholes: No. 6 Size 3¼" x 4½" Location Shell

No Connections to Item 17. EXCEPT AS NOTED IN ITEM 16

18. Fusible Plug (if used) N/A (No., Diam., Location, Mfrs. Stamp)

19. Boiler Supports: No. 4 Type Legs (Saddles, Legs, Lugs) Attachment Welded (Bolted or Welded)

20. Max. AWP 150 psi Based On PG-27 (Code Par. and/or Formula) Heating Surface 2000 (Total) sq ft

21. Shop Hydrostatic Test 225 psig. N/A (Electric Boilers) kw.

CERTIFICATE OF COMPLIANCE

We certify the statements in this data report to be correct.

Date May 8, 1981 Signed Cleaver-Brooks Division of Aqua-Chem, Inc. (Manufacturer) By JOHN D. FREED (Authorized Representative)

Our Certificate of Authorization No. 10905 to use the (A) or (S) S Symbol expires January 15, 1983.

CERTIFICATE OF SHOP INSPECTION

BOILER MADE BY Cleaver-Brooks Division of Aqua-Chem, Inc. at Lebanon, Pa.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Pennsylvania and employed by The Hartford Steam Boiler I & I Co. of Hartford, Conn. have inspected parts of this boiler referred to as data items 1-8, 10-13, 15, 17-21 and have examined Manufacturer's Partial Data Reports for items NONE

and state that, to the best of my knowledge and belief, the manufacturer has constructed this boiler in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the boiler described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date May 8, 1981 Commissions NB 5004 PA 1743 (Nat'l Board, State, Province and No.)

Walter A. Zapak
WALTER A. ZAPAK Inspector

CERTIFICATE OF COMPLIANCE

We certify that the field assembly of all parts of this boiler conforms with the requirements of SECTION I of the ASME BOILER AND PRESSURE VESSEL CODE.

Date _____ Signed _____ (Assembler) By _____ (Representative)

Our Certificate of Authorization No. _____ to use the (A) or (S) _____ Symbol expires _____ 19 _____

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of _____ and employed by _____ of _____ have compared the statements in this Manufacturer's Data Report with the described boiler and state that the parts referred to as data items _____, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the manufacturer and/or the assembler has constructed and assembled this boiler in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE. The described boiler was inspected and subjected to a hydrostatic test of _____ psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the boiler described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date _____

_____ Inspector Commissions _____ (Nat'l Board, State, Province and No.)

INSPECTION REPORT-BOILERS
NAVFAC 9-11014/41 (3/67)
Supersedes NAVDOCKS 2544
S/N 0105-LF-004-0000

DATE OF INSPECTION: 21 MAY 1979

TYPE OF INSPECTION: A ☐ INTERNAL & EXTERNAL B ☒ INTERNAL & EXTERNAL WITH PRESSURE TEST C ☐ OPERATIONAL

1. FROM: BASE MAINT OFFICER CAMP LEJEUNE N.C.

2. TO: NAVFACENGCOM NORFOLK VA.

14. CERTIFICATE ISSUED ☒ YES ☐ NO — EXPIRES 16 NOV 1979

15. BOILER INSPECTOR: Jesse L. Sellers — NAVY OR NATIONAL BOARD NO. NAVFAC 225

16. REASON FOR NOT ISSUING CERTIFICATE:

BOILER DATA

3. MANUFACTURER: ORR & SEMBOWER

4. PROPERTY NO.	5. MFG. SERIAL NO.	6. MFG. MODEL NO.
9	543-5205	30-35501
7. BUILDING NO.	**8. YEAR BUILT**	**9. CAPACITY**
2615	1954	12,000 #/HR

10. FUEL (Check): ☐ COAL ☒ OIL ☐ GAS

11. PRESSURE

DESIGNED	OPERATING	TEST
151 psi	100 psi	227 psi

12. FEED WATER TREATMENT: ☒ SATISFACTORY ☐ UNSATISFACTORY

13. TYPE: ☐ WATER TUBE ☒ FIRE TUBE ☐ C. I.

17. BOILER USE: EXPORT

18. COMBUSTION CONTROL (Mfg. Name): FIREYE

19. COMBUSTION: _____ % CO_2 _____ % EXCESS O_2

20. FLUE GAS TEMPERATURE: AFTER BOILER _____ °F : AFTER HEAT TRAP _____ °F

SAFETY DEVICES

SAFETY VALVES

21. MANUFACTURER	22. NUMBER AND SIZE	23. PSI SETTING	24. CONDITION
LONERGAN	2 - 2"	120 - 125	—

STEAM PRESSURE GAUGE

25. MANUFACTURER: ASHCROFT

26. CORRECTIONS: WATER LEG CONSTANT _____ psi; OTHER _____ psi

27. REASON IF NOT TESTED:

FIRING EQUIPMENT

ITEM	IN SERVICE	ALTERNATE
28. MANUFACTURER	ORR & SEMBOWER	NONE
29. TYPE	GUN & NOZZLE - STEAM & AIR ATOM	
30. FUEL GRADE	#6	

31. INSPECTOR'S COMMENTS:
HYDROSTATIC TEST REVEALED two tube WEEPS AT SEAM WELDS ON 1ST PASS TUBE ENDS. THESE LEAKS WERE REPAIRED AND BOILER WAS RETESTED SATISFACTORILY.

32. ATTACHMENT(S) (Check): ☒ COPY OF INSPECTOR'S REPORT ☐ SPECIAL COMMENTS

33. SIGNATURE: T. E. Cone — BY DIRECTION

* U. S. GOVERNMENT PRINTING OFFICE: 1974—605-704

5ND LANTDIV 9-4730/6 (Rev. 8/68)
Boiler Inspection - Addendum to NAVFAC 9-11014/41

DATE: 21 May 1979

ACTIVITY: Marine Corps Base, Camp Lejeune, North Carolina

BUILDING NO: 2615 BOILER NO: 9

Based on the existing condition and present rate of deterioration, it is estimated that the boiler has a remaining life of

/ / 5 or more years / X / 25+ years

The following corrective action is recommended:

1. This boiler has been in service over 25 years.

2. The oil burner should be replaced due to age and unavailability of replacement parts. Combustion efficiency for 1977 and 1978 was less than 80 percent.

3. Tube ends on first pass were seal welded in 1978 and hydrostatic tested satisfactorily at 227 PSI.

4. Hydrostatic test this date revealed two tube weeps at seal welds. These leaks were repaired and boiler was retested satisfactorily.

5. Based on this information and the past history of a same type boiler, No. 54 located in Building BB-9, the remaining life of this boiler is estimated to be from two to five years.