

SUBJECT: Exh. Fan 101. Rooms S155 & S144

A pitot traverse of this unit reveals it is 24% low in air quantity. Motor is overloaded. We do not recommend a larger HP motor with a change in sheaves, since the fan construction cannot with stand higher speeds. A more practical solution may be to install an in-line fan in the existing equipment room adjacent to rooms \$155 Hot Lab & \$144 Scan Room. There is adequate space to install it above the existing prop fan and adequate space above ceiling to run duct work. Exhaust air from above two rooms is less than 50 CFM. Both rooms are under positive pressure.

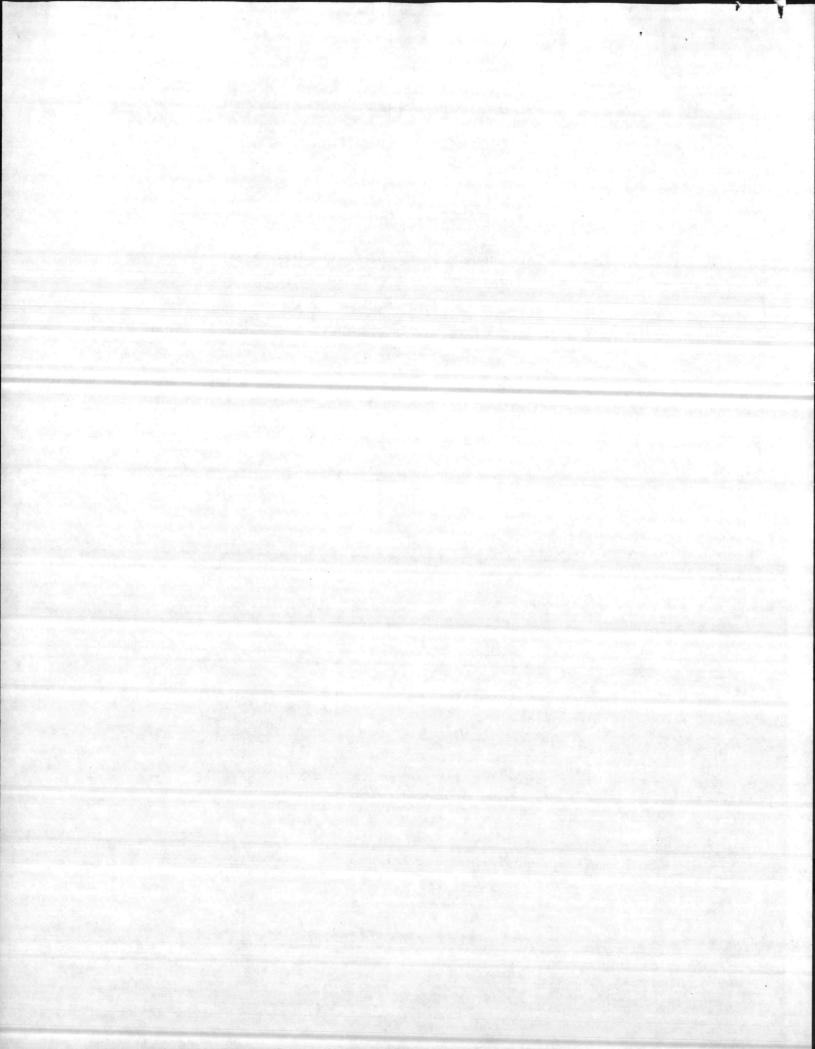
Atomley R. Varry Stanley R. Parry

F.E.S. Tech

TELEPHONE: 919-763-0196

WILMINGTON, N.C. 28401

Division of Johnson Controls, Inc.



ELGIDEEBING

EXHAUST FAN TEST REPORT

PROJECT CAMP LEJEUNE HOSPITAL LOCATION JACKSONVILLE NC.

EXH. FAN NO		EF101					
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DATE .

7/3/85

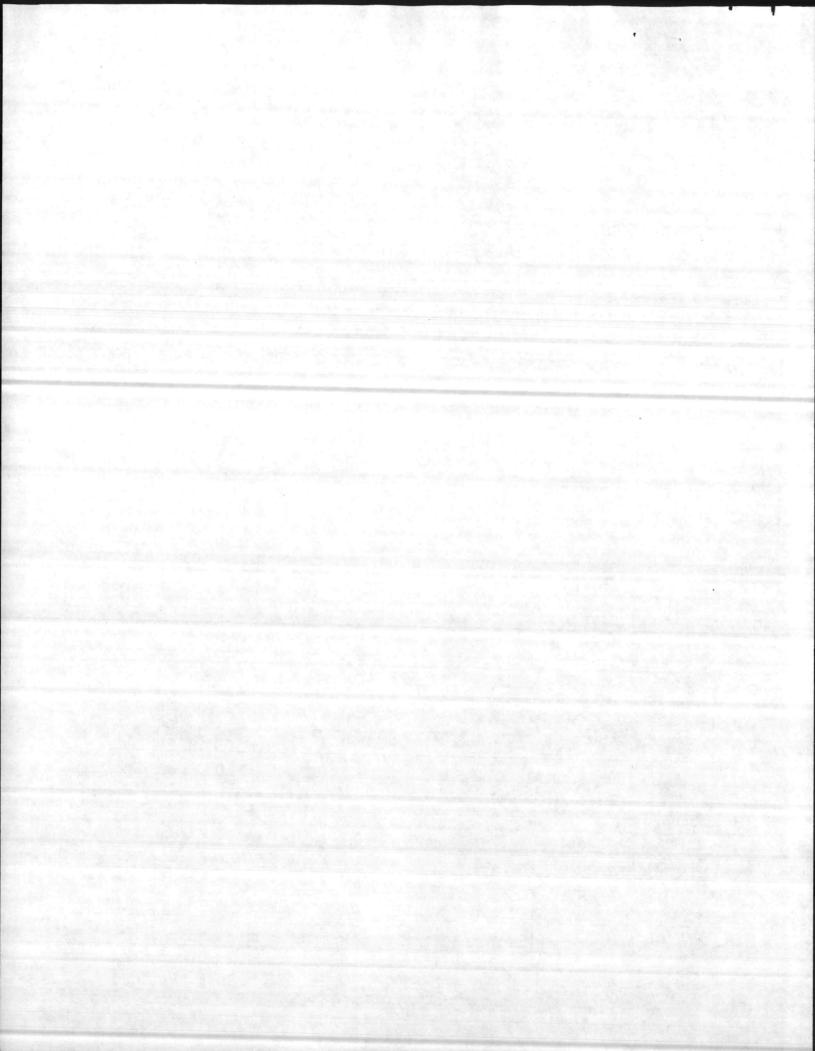
S.R.P.

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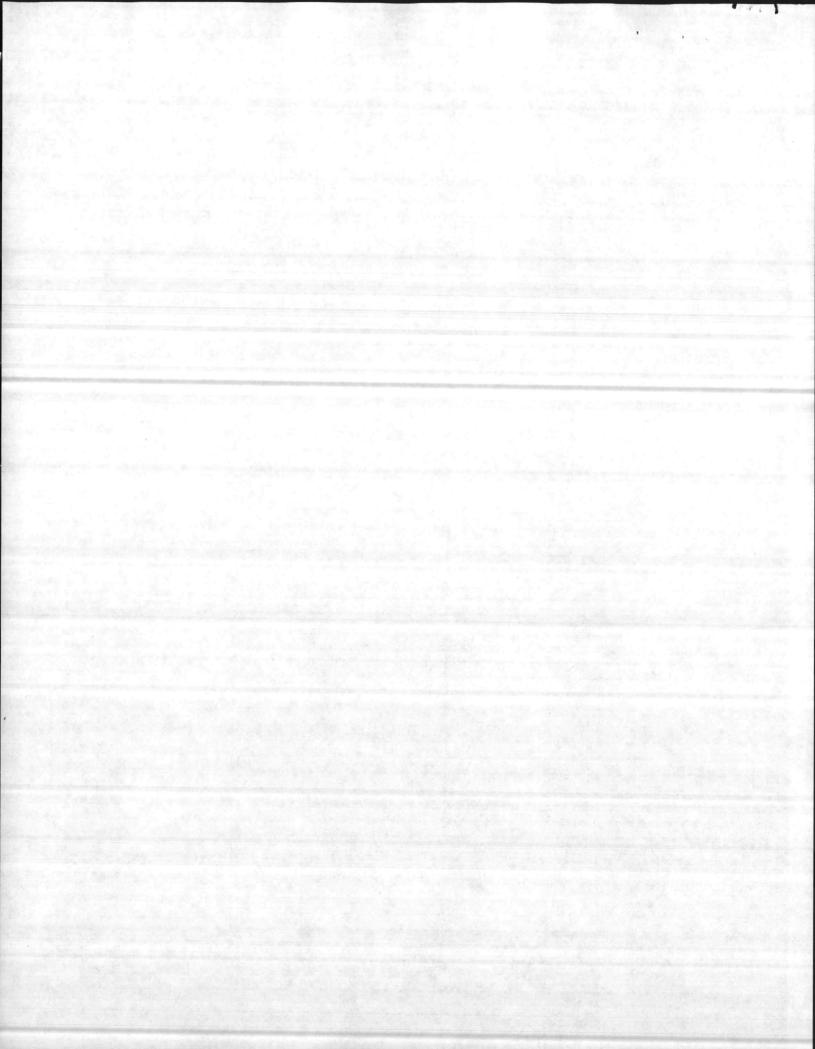
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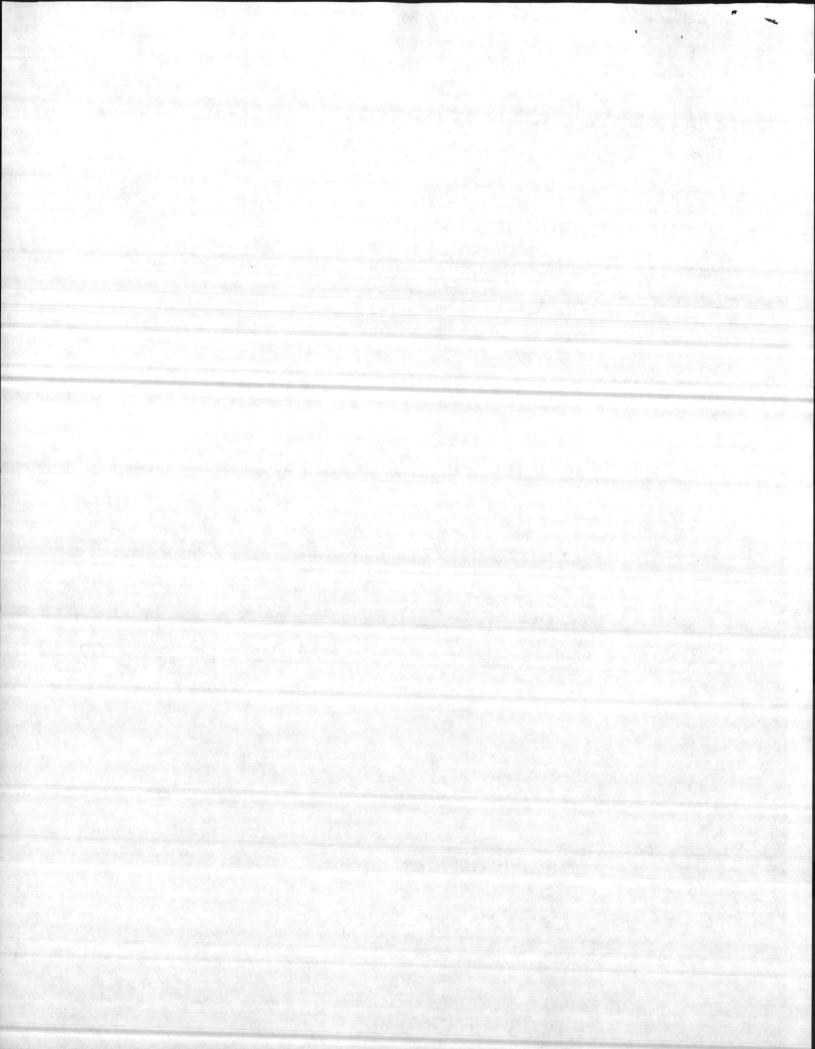
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Stanley R. Parry F.E.S. Tech

TELEPHONE: 919-763-0196

Division of Johnson Controls, Inc.

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PROJECT CAMP LEJEUNE HOSPITAL LOCATION JACKSONVILLE

EXHAUST FAN TEST REPORT

NC.

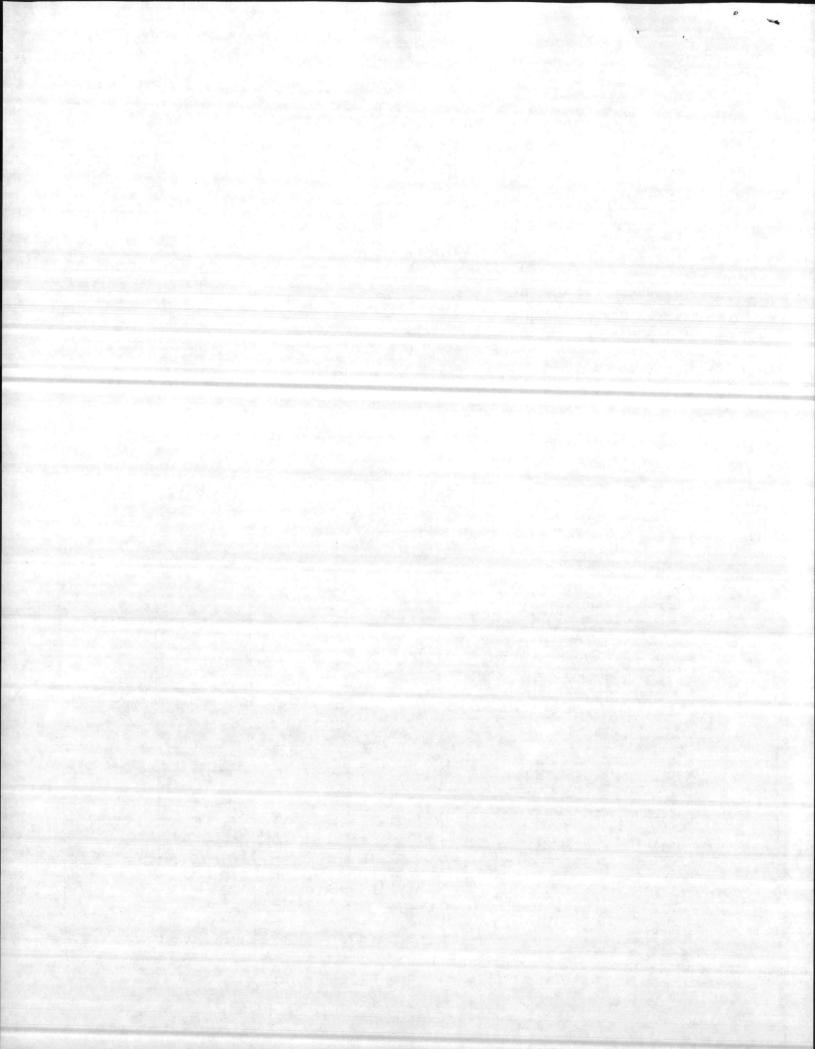
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RPM	ACTUAL	870				-	
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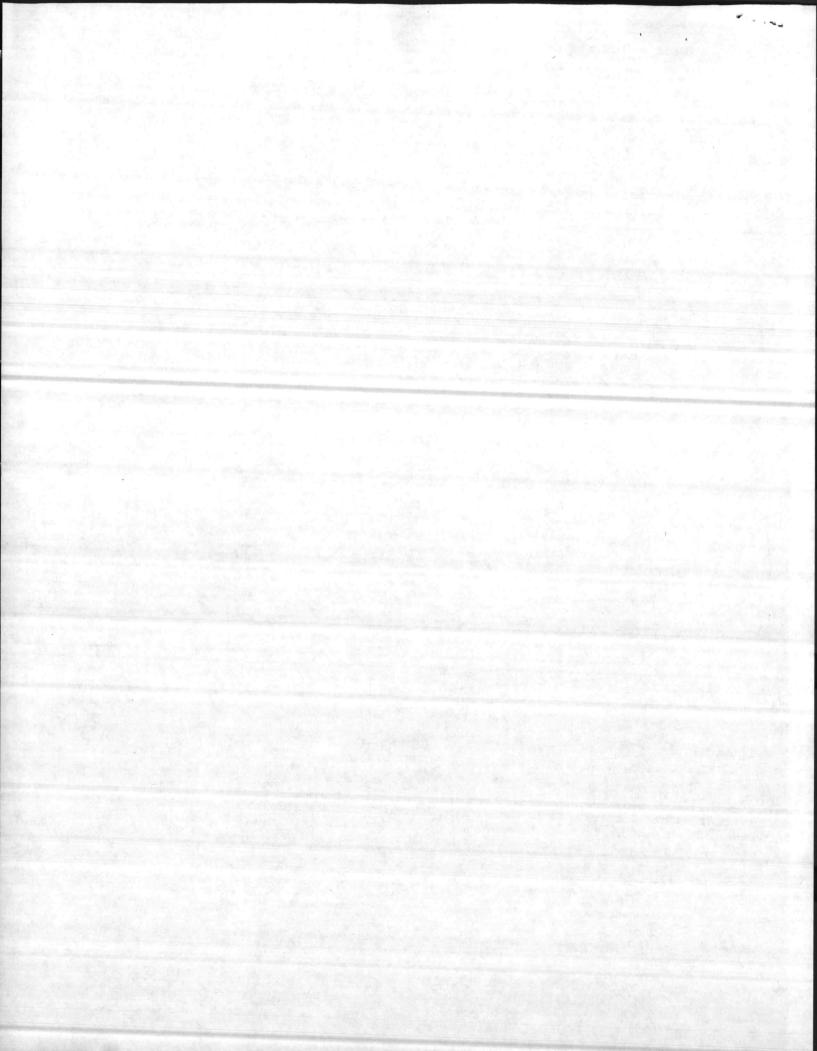
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Controls, Inc.



Johnson Controls, Inc. Naval Regional Medical Center Hospital Communications Center Stone Street & Brewster Blvd. Post Office Box 4 Camp Lejeune, NC 28542 Tel. 919/353 0558

August 15, 1985



Systems & Services Division

LtJg R. V. Richards Facilities Maintenance Naval Hospital Camp Lejeune, N. C. 28542

Dear Sir:

Per your request, please find the following balance reports conducted by Mr. Stan Parry, JCI Fluid Service Application Engineer.

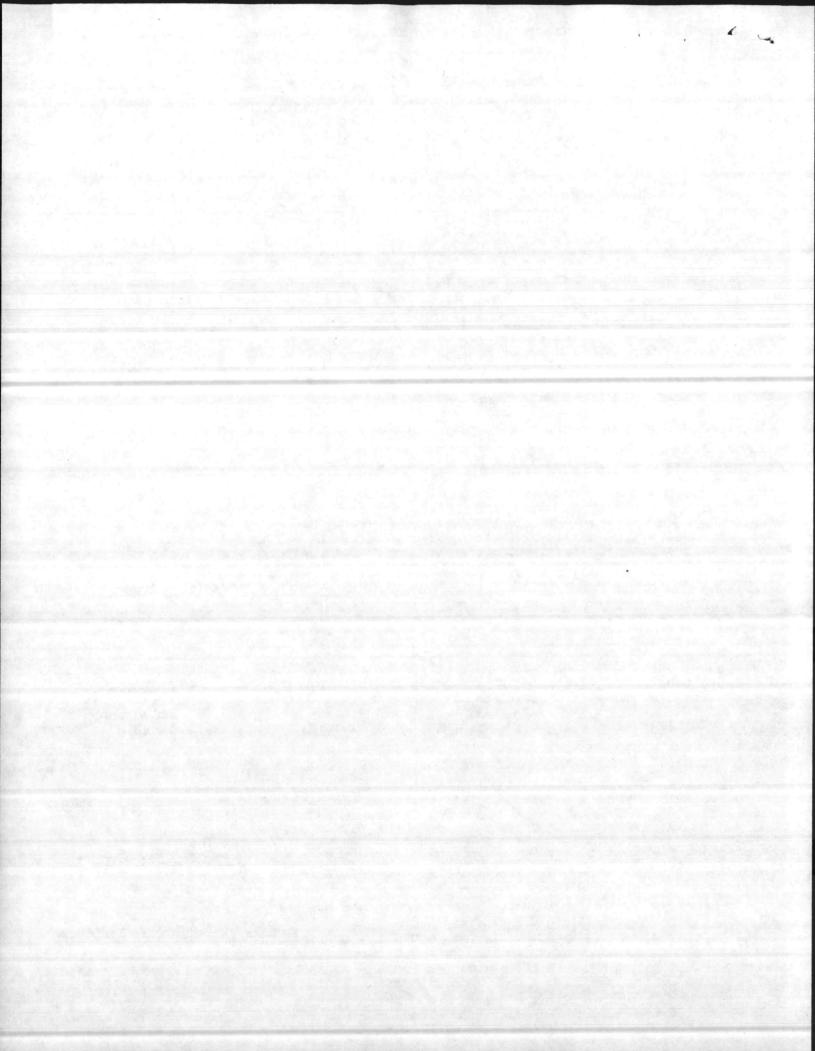
Exhaust Fan 101 (Rooms S155 & S144) 2 copies AH22, Chiller Pumps P116,P117,P118 2 copies

In regard to the balancing work conducted by Mr. Parry and your maintenance staff (Yopp), particular attention should be to the problems found concerning AHU #22. Such attention should be to note, quantitatively, the magnitude of energy waste that can be attributed to inefficiencies noted within the report. Specifically, fan RPM set to maximum speed, spiral duct material and installation, flourescent light return tabs not popped out and a high number of strip line diffusers acting as dampers rather than deflectors. As noted, savings of 15-19% can be achieved, if the Air Handling systems throughout the hospital are experiencing similar characteristics as AHU No. 22, via exhanced preventive maintenance programs that specifically tasks such duties that check/resolve these types of problems. It is agreed that this would be time consuming; however, it is an energy conserving measure that is needed so as to guarantee cost efficiencies and comfort within the facility.

In regard to the reports concerning exhaust fan 101 (Room S155 & S144) note recommendation to add an in-line fan in the existing equipment room adjacent to Rooms S155 Hot Lab & S144 Scan Room. This recommendation is based upon the existing motor being overloaded yet 24% low in air quantity as referenced to design.

In regard to chiller pump balance reports, note the specific pump curves denoting the "design" characteristics as compared to the pre-balance "original." Note also that the respective pumps (P116, P117, & P118) have been balanced according to design as denoted by "present". This balance has been verified through EMCS reporting of these flow characteristics.

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PAGE 2

Johnson Controls, Inc.

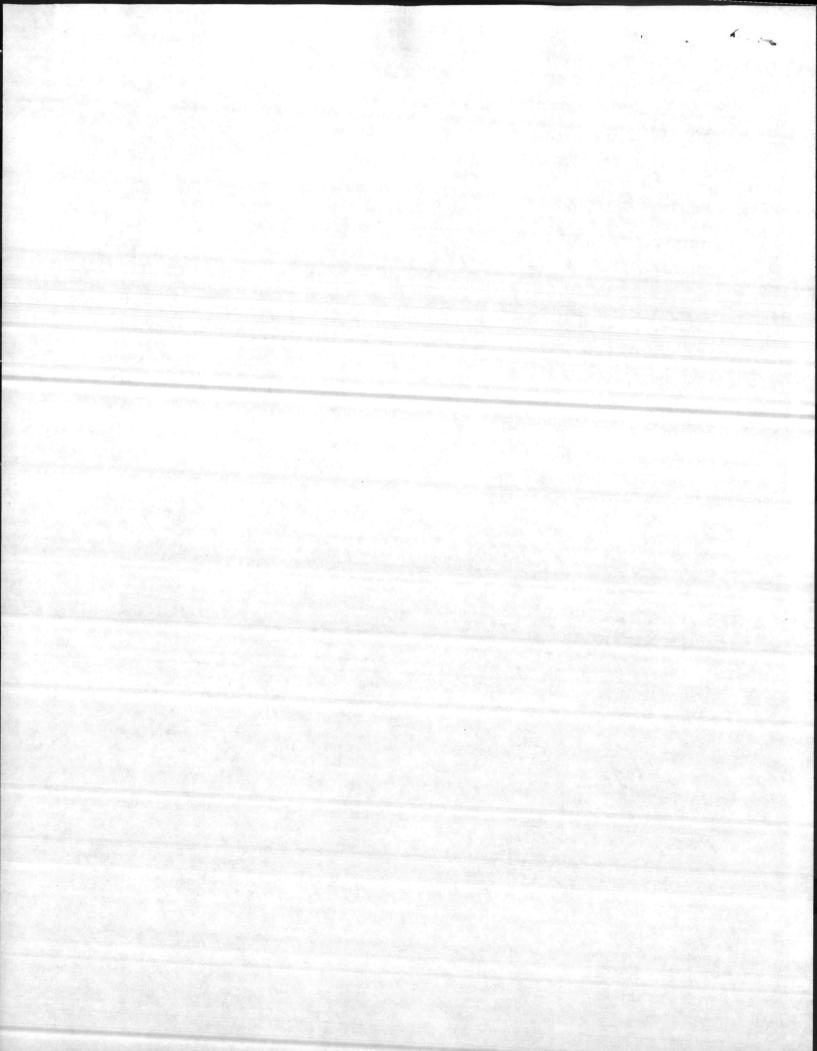
Should you have any questions or comments regarding this balance work and reports, please advise.

Sincerely, JOHNSON CONTROLS, INC.

Samuel C. Price, Jr. Application Engineer IV

SCP/bjb

Enclosure





SYSTEM ANALYSIS

AIR AND WATER BALANCING

Camp Lejeune, N. C. New Naval Hospital AHU22. Serving 2nd FL Physical Therapy, Minor O.R. & Dental Suite

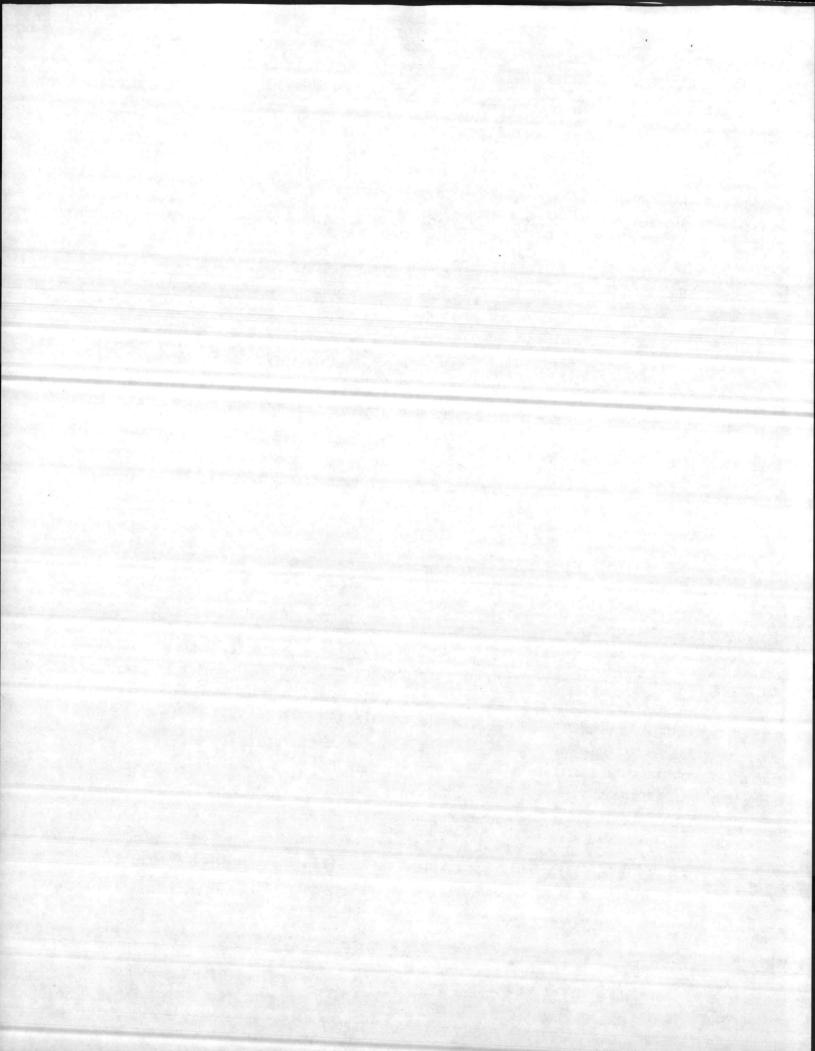
This unit was origanally found to be running at excessive RPM 1470RPM and producing 5958CFM design is 5200CFM. 15% hi, reducing of speed to 1360RPM produced. 6803CFM, an increase of air quantity. Further reduction of speed to min, of existing sheaves 1200RPM produced 6374CFM still 22% hi. An inspection of duct system revealed many broken flexible spiral ducts on the high pressure side of the terminal boxes. At this point we wish to advise that the type of flexible duct used, was not designed for this high pressure application. We are also advised by the hospital engineering & maintenance staff, that this condition exists thru out the hospital.

Further Inspection revealed some very poor duct connections to terminal units EG: Sharp 180° turns resulting in total shut off of the terminal unit by collapsing of the spiral duct. Some boxes were completely shut off by their individual internal controls, some were wide open. One box in the exterior hall did not have an end cap on it. This cap measures 29" X 14", this cap should have been installed during construction, or found to be missing during testing procedures.

Return air balancing damper to this area was found shut but marked open. It is the considered opinion of this technician, that this fan was set to max. speed in order to over come the above system deficiencies. Resulting in loss of air due to the characteristics of this particular fan but increased the energy consumption by 20%. There are 46 air handling units in this hospital. If 50% of them are in this condition. an awful lot of energy dollars are being wasted. EG: At 1470RPM 5958CFM 11.5amps 8.9BHP at 1200RPM 6374CFM 9.4amps 7.24BHP. This is a savings of 19% in energy dollars. But air quantity is still 22% hi. As of 7/12/85 all of the repairs to the duct system could not be completed due to the unavailability of the proper spiral duct. When these repairs are complete it is possible we will see a higher % of savings and certainly, increased efficiency.

> TELEPHONE: 919-763-0196 P.O. BOX 3362 Division of Johnson Controls, Inc.

WILMINGTON, N.C. 28401





SYSTEM ANALYSIS

AIR AND WATER BALANCING

page 2

New Naval Hospital

Con't. Camp Lejeune, N.C.

It was also noted that in many areas provision for return air were not used. Each of the florescent lights has two pop-out tabs, 1 on either side. All of them were still installed.

Strip line air diffuser 2 ft. & 4 ft. long. All have 1 or 2 deflecting baffles. A large number were found to be set so that they were acting as a damper not a deflector.

Chilled Water Pumps. P116, P117, P118

All 3 pumps were moving an average of 24% to much water. While this may or may not affect power consumption of each pump, it certainly does affect the power consumption of the chillers.

Cooling 1100GPM from 68° to 45° requires a higher chiller loading than cooling 880GPM from 68° to 45°, even to the possibility of having to use two chillers on occasions , to accomplish what can be done by one.

Respectfully,

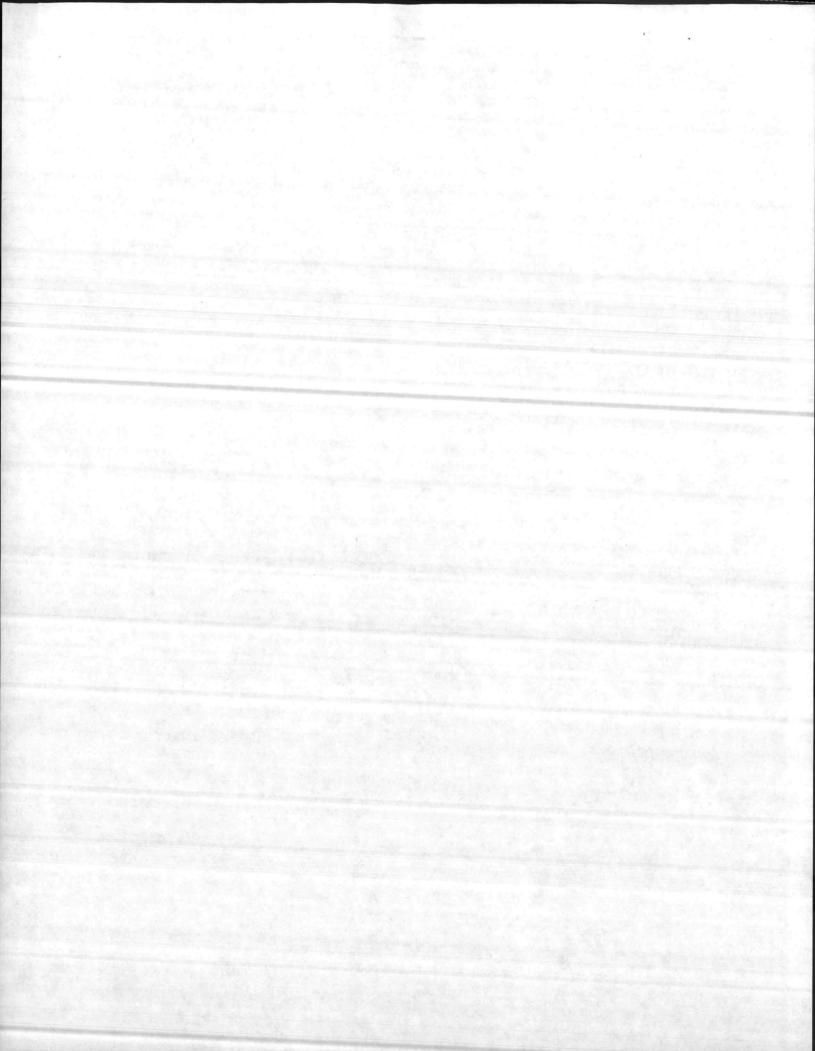
Stanley R. Parry

F.E.S. Tech. 8/12/85

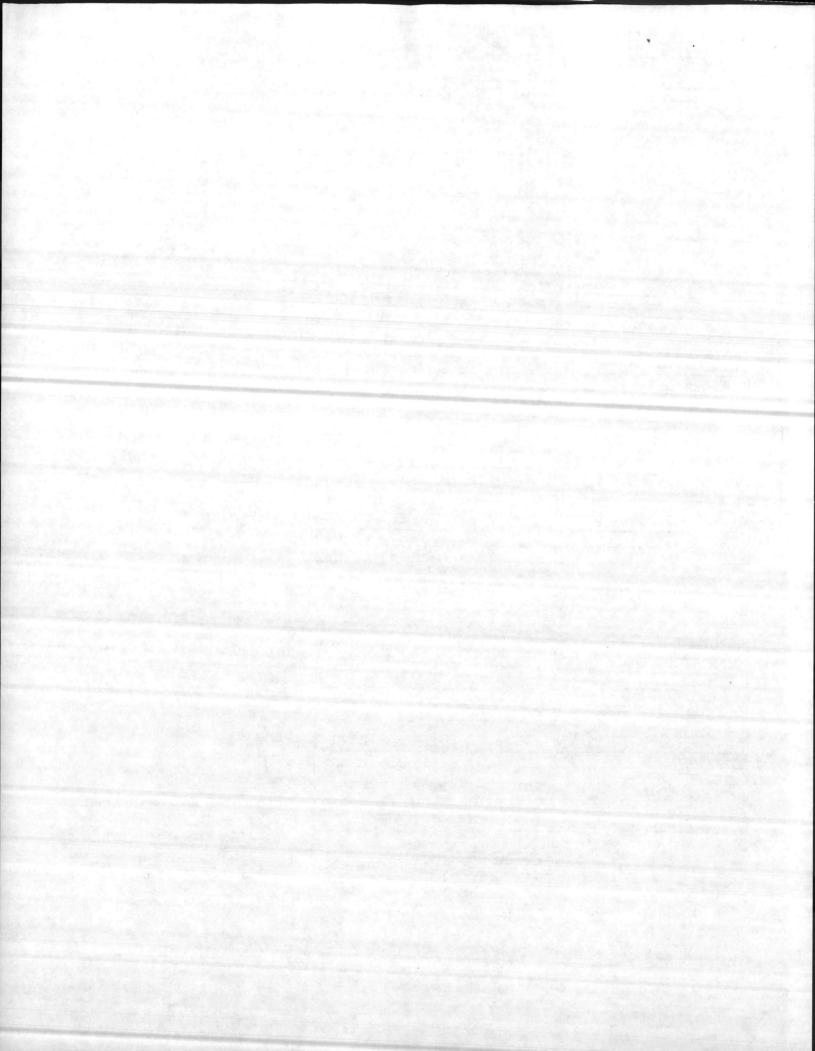
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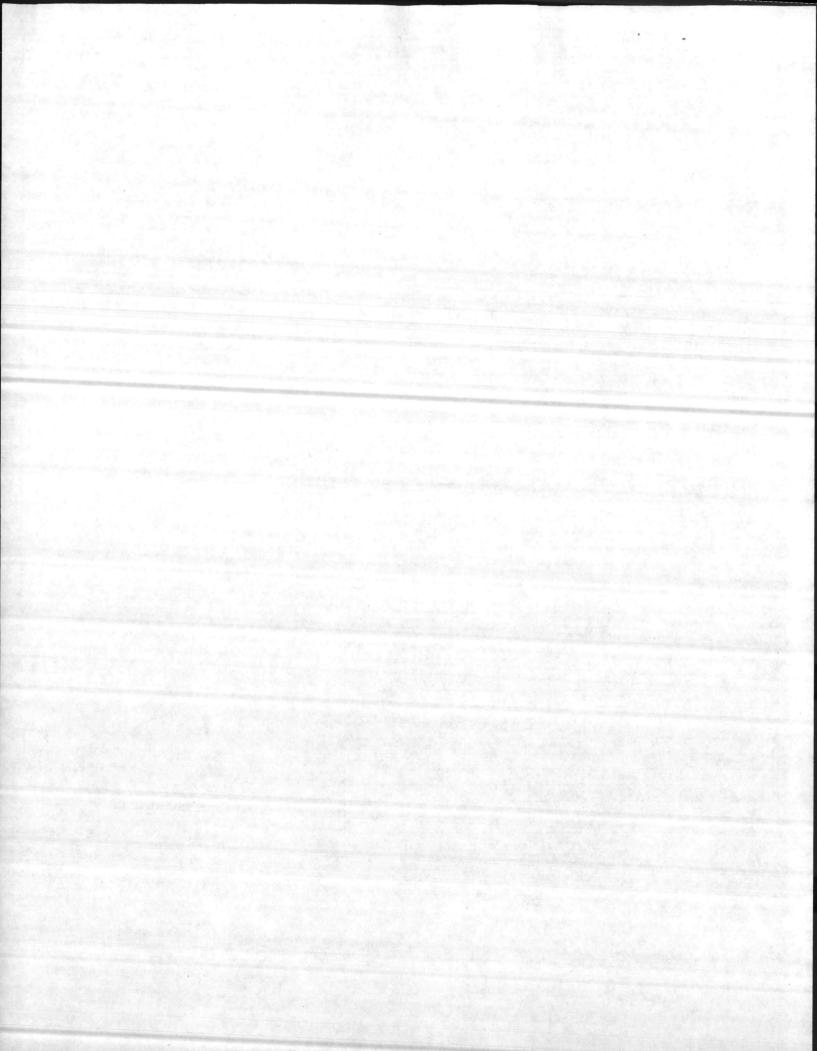
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SUCTION PRESSURE (TP)DISCHARGE PRESSURE (SP)TOTAL STATIC PRESSUR $3.5^{"}$ FAN RPM 1250 1360 FAN PULLEYBELT SIZE & QUANTITY $2 \cdot 13.36$ DEL OR SERIAL NO.S $\swarrow 215 \ A \ 2.25 \ G$ DESIGN OR RATEDMOTOR H.P. 12.9	O.A. CFM	1040		
DISCHARGE PRESSURE (SP)TOTAL STATIC PRESSUR 3.5^{n} FAN RPM 1250 I 360 FAN PULLEY 267^{n} BELT SIZE & QUANTITY $2-336$ DEL OR SERIAL NO.DESIGN OR RATEDACTUALMOTOR H.P. 10 BHP 7.8 L1 L_1 AMPERAGE 12.9 VOLTAGE $U60$ 457 RFM 1740 MOTOR SHEAVE 286^{n}	RETURN CFM	4160		
TOTAL STATIC PRESSUR 3.5^{μ} 3.75^{*} FAN RPM 1250 1360 FAN PULLEY $287''$ BELT SIZE & QUANTITY $2-336$ OutputDEL OR SERIAL NO.SK215 A C 205 GDESIGN OR RATEDACTUALMOTOR H.P. 10 BHP 7.8 L1 L_1 APPERAGEVOLTAGE 12.9 VOLTAGE 1240 457 RPM 1740 1750 MOTOR SHEAVE $286'$	SUCTION PRESSURE (TP)			
FAN RPM 1250 1360 FAN PULLEY $2B7''$ BELT SIZE & QUANTITY $2-336$ TOR MANUFACTURER 6 $G \in$ DEL OR SERIAL NO. $5 \times 215 A c 205 G$ DESIGN OR RATEDMOTOR H.P. 10 BHP 7.8 L_1 L_1 AMPERAGE 12.9 L_2 10.2 L_3 $VOLTAGE$ HEM 1740 HEM 1750 MOTOR SHEAVE $2B6'$	DISCHARGE PRESSURE (SP)			
FAN PULLEY $2B7"$ BELT SIZE & QUANTITY $2 - 13.36$ TOR MANUFACTURER $C \in C$ DEL OR SERIAL NO. $5 \times 21 \le A \le 20 \le 6$ DESIGN OR RATED ACTUALMOTOR H.P. 10 BHP 7.8 L1 L_1 AMPERAGE 12.9 L2 10.2 L3 1740 VOLTAGE 100 MOTOR SHEAVE $2B6'$	TOTAL STATIC PRESSUR	3.5"		
BELT SIZE & QUANTITY $2 - 13.36$ TOR MANUFACTURER $C E$ DEL OR SERIAL NO. $S \times 215 A C 205 G$ DESIGN OR RATED ACTUAL MOTOR H.P. 10 BHP 7.8 L1 L_1 AMPERAGE 12.9 VOLTAGE $Ub 0$ MOTOR SHEAVE $2B6'$		1250		
TOR MANUFACTURER \bigcirc		and a the second	287"	
DEL OR SERIAL NO.SK215 AC205 GDESIGN OR RATEDACTUALMOTOR H.P.10IP7.8L110AMPERAGE12.9VOLTAGE190HP1740IPM1740DESIGN OR RATEDDESIGN OR RATEDACTUALMOTOR SHEAVE2 B6'	BELT SIZE & QUANTITY	A SAMPLE AND	2-336	
MOTOR H.P. 10 10 BHP 7.8 L1 L1 AMPERAGE 12.9 L2 VOLTAGE Lb0 457 RPM 1740 1750 MOTOR SHEAVE 2B6'			5 G	
BHP 7.8 AMPERAGE 12.9 L1 L1 AMPERAGE 12.9 L2 10.2 L3 L3 VOLTAGE L400 H00 1750 MOTOR SHEAVE 216'				
L1 AMPERAGE 12.9 L2 10.2 L3 VOLTAGE 140 RPM 1740 MOTOR SHEAVE 216'		DESIGN OR RATE	ACTUAL	
AMPERAGE 12.9 L2 10.2 L3 L3 VOLTAGE 460 457 RPM 1740 1750 MOTOR SHEAVE 216'	MOTOR H.P.		10	
VOLTAGE 457 RPM 1740 1750 MOTOR SHEAVE 2B6'			10	
VOLTAGE 460 457 RPM 1740 1750 MOTOR SHEAVE 2B6'		10	10 7.8	
RPM 1740 1750 MOTOR SHEAVE 2B6'	внр	10	10 7.8	
MOTOR SHEAVE 2B6'	AMPERAGE	10	$ \begin{array}{c} 10 \\ 7.8 \\ L_1 \\ L_2 \\ 10.2 \\ L_3 \\ \end{array} $	
	BHP AMPERAGE VOLTAGE	10 12.9 460 ·	$ \begin{array}{c} 10 \\ 7.8 \\ L_1 \\ L_2 \\ 10.2 \\ L_3 \\ 457 \end{array} $	
O.L. HEATERS	BHP AMPERAGE VOLTAGE RPM	10 12.9 460 ·	$ \begin{array}{r} 10 \\ 7.8 \\ L_1 \\ L_2 \\ 10.2 \\ L_3 \\ 457 \\ 1750 \\ 1750 \end{array} $	
	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE	10 12.9 460 ·	$ \begin{array}{r} 10 \\ 7.8 \\ L_1 \\ L_2 \\ 10.2 \\ L_3 \\ 457 \\ 1750 \\ 1750 \end{array} $	
	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE	10 12.9 460 ·	$ \begin{array}{r} 10 \\ 7.8 \\ L_1 \\ L_2 \\ 10.2 \\ L_3 \\ 457 \\ 1750 \\ 1750 \end{array} $	
	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE	10 12.9 460 ·	$ \begin{array}{r} 10 \\ 7.8 \\ L_1 \\ L_2 \\ 10.2 \\ L_3 \\ 457 \\ 1750 \\ 1750 \end{array} $	
NAMEPLATE AMPS X VOLTAGE	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS	10 12.9 460 · 1740	$ \begin{array}{c} 10\\ 7.8\\ L_{1}\\ L_{2} 10.2\\ L_{3}\\ 457\\ 1750\\ 2B6' \end{array} $	24
RRECTED FULL LOAD AMPS = NAMEPLATE AMPS X VOLTAGE = 12.98	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS	10 12.9 460 1740	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	98
REFEILD FULL LUAD AMPS =	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS	10 12.9 460 1740	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	98
FIELD CHECKED VOLTAGE	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS RRECTED FULL LOAD AMPS = -	AMEPLATE AMPS X V FIELD CHECKED VC	$\frac{10}{7.8}$ $\frac{1}{12}$ $\frac{1}{2}$	Sector and the sector of the
FIELD CHECKED VOLTAGE	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS RRECTED FULL LOAD AMPS = -	10 12.9 12.9 1740 1740 AMEPLATE AMPS X V FIELD CHECKED VC	$ \frac{10}{7.8} \\ \frac{1}{1} \\ \frac{1}{2} \\ $	Sector and the sector of the
PROX BHP = NAMEPI ATE HP + MOTOR OPERATING AMPS 7.8	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS	10 12.9 12.9 1740 1740 AMEPLATE AMPS X V FIELD CHECKED VC	$ \frac{10}{7.8} \\ \frac{1}{1} \\ \frac{1}{2} \\ $	Sector and the sector of the
PROX. BHP = NAMEPLATE HP x $\frac{\text{MOTOR OPERATING AMPS}}{\text{CORRECTED F.L.A.}} = 72.78$	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS RRECTED FULL LOAD AMPS = N PROX. BHP = NAMEPLATE HP x	AMEPLATE AMPS X V FIELD CHECKED VO MOTOR OPERATING CORRECTED F.L./	$\frac{10}{7.8}$ $\frac{1}{12}$ $\frac{1}{2}$	
PROX BHP = NAMEPI ATE HP + MOTOR OPERATING AMPS 7.8	BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS RRECTED FULL LOAD AMPS = N PROX. BHP = NAMEPLATE HP x	AMEPLATE AMPS X V FIELD CHECKED VC MOTOR OPERATING CORRECTED F.L./	$ \begin{array}{c} 10 \\ 7.8 \\ L_{1} \\ -2 \\ 10.2 \\ -3 \\ -457 \\ 1750 \\ 286' \\ \hline 0LTAGE = 12.6 \\ \hline 0LTAGE = 7.8 \\ \hline 0.17.8 \\$	3

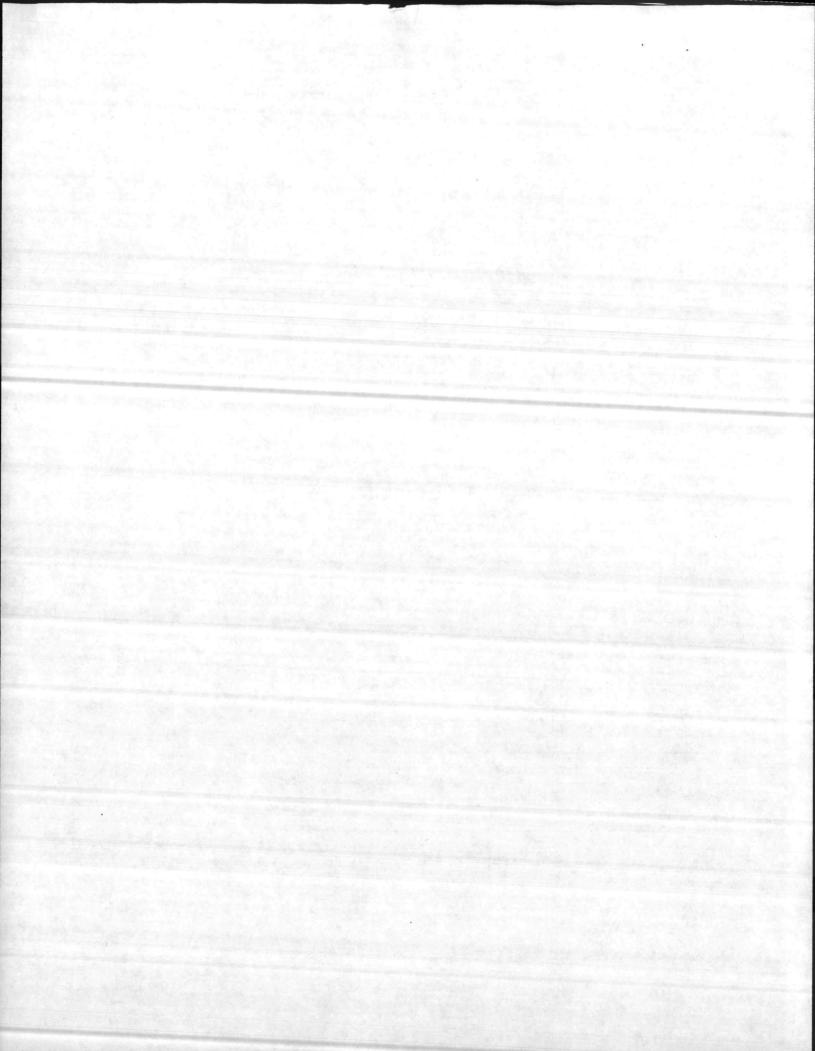
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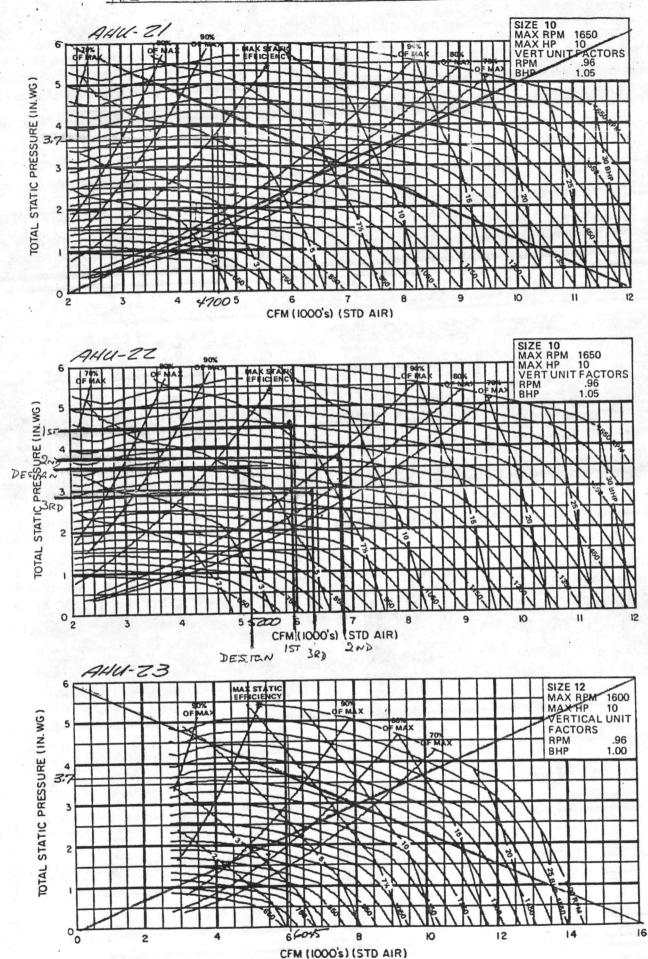
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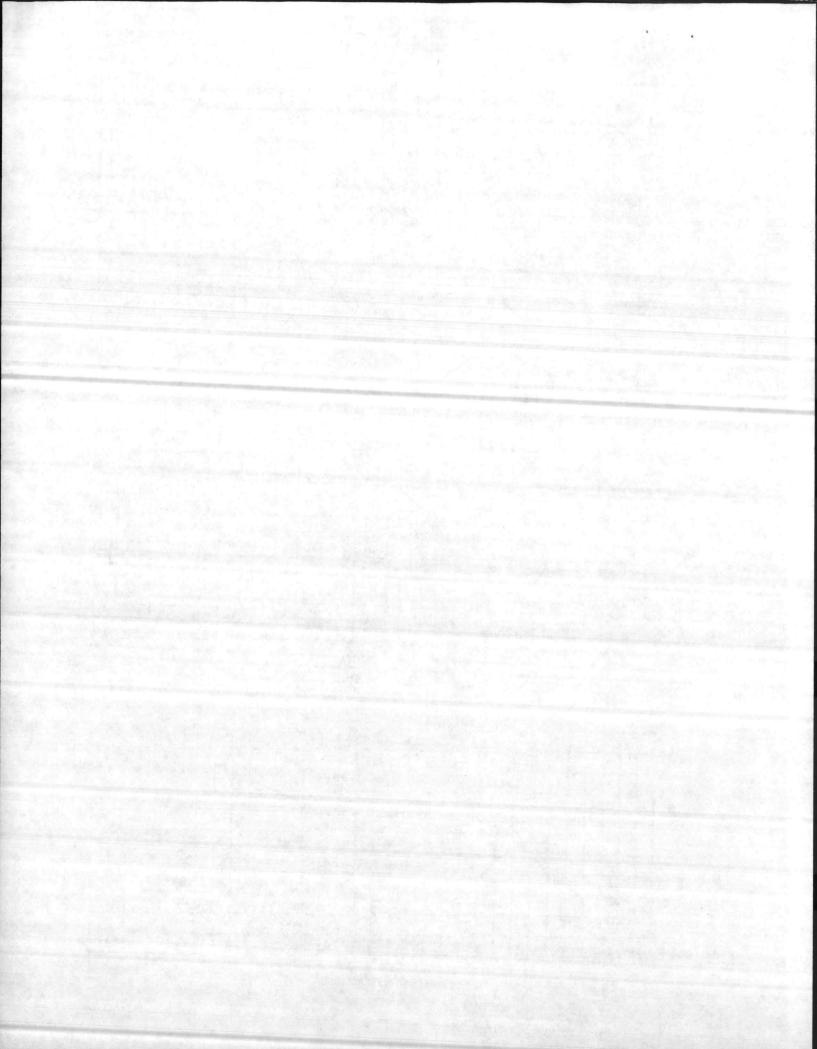
DJECT <u>NAVAL H</u>		MENT TEST REPO	
DJECT <u>IVHVHL M</u>	USTINE		
		and a start of the	14.6
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TEM AHU 25	2 .	_ EQUIPMENT LOCA	ATION _ 2ND F2
	and a standard standard		
		As a content	REMARKS
	Sector a second state of		
EL OR SERIAL NO.		1	
and the second second second	DESIGN	ACTUAL	3RD TEST
TOTAL CFM	5200	6374	
O.A. CFM	1040		
RETURN CFM	4160		
SUCTION PRESSURE (TP)		and the second science	
DISCHARGE PRESSURE (SP)			
TOTAL STATIC PRESSUR	3.5"		
FAN RPM	1250	1200	
FAN PULLEY BELT SIZE & QUANTITY		287° 2-B36	
	and the second		and the second
			a and the second second
2000 - 2000			
OR MANUFACTURER G (
511 1101 1101 011211	E (215AC 20:	5 6	
5.	(215AC 20:		
EL OR SERIAL NO. 5	DESIGN OR RATED	ACTUAL	
MOTOR H.P.	(215AC 20:	ACTUAL	
EL OR SERIAL NO. 5	DESIGN OR RATED	ACTUAL 10 7.94	
MOTOR H.P.	CQISACQO DESIGN OR RATED	ACTUAL 10 7.94	
MOTOR H.P.	DESIGN OR RATED	ACTUAL 10 7.94 L1 L2 9.4	
MOTOR H.P.	CONTRACTOR CONTRACTED	ACTUAL 10 7.94 L1 L2 9.4 L3	
MOTOR H.P. BHP AMPERAGE	CRISACROS DESIGN OR RATED 10 12.9 LL60	ACTUAL 10 7.94 L_1 L_2 9.4 L_3 457	
MOTOR H.P. BHP AMPERAGE VOLTAGE	CONTRACTOR CONTRACTED	ACTUAL 10 7.94 L1 L2 9.4 L3	
EL OR SERIAL NO. 5	CRISACROS DESIGN OR RATED 10 12.9 LL60	$ \begin{array}{c} ACTUAL \\ 10 \\ 7.94 \\ L_1 \\ L_2 9.4 \\ L_3 \\ 457 \\ 1750 \\ 1750 $	
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE	CRISACROS DESIGN OR RATED 10 12.9 LL60	$ \begin{array}{c} ACTUAL \\ 10 \\ 7.94 \\ L_1 \\ L_2 9.4 \\ L_3 \\ 457 \\ 1750 \\ 1750 $	
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE	CRISACROS DESIGN OR RATED 10 12.9 LL60	$ \begin{array}{c} ACTUAL \\ 10 7.94 L_1 L_2 9.4 L_3 457 1750 750$	
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS	(215AC20) DESIGN OR RATED 10 12.9 12.9 12.9	ACTUAL 10^{2} 7.94 L_{1} L_{2} 9.4 L_{3} 457 1750 286^{2}	
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS	CONTRACTOR CONTRACTOR DESIGN OR RATED	ACTUAL 10^{2} 7.94 L_{1} L_{2} 9.4 L_{3} 457 1750 286^{2}	2.98
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS	AMEPLATE AMPS X VOL	ACTUAL 10^{2} 7.94 L_{1} L_{2} 9.4 L_{3} 457 1750 286^{2}	2.38
EL OR SERIAL NO	AMEPLATE AMPS X VOL MOTOR OPERATING AM	$ \begin{array}{r} ACTUAL \\ 102 \\ 7.94 \\ L_{1} \\ L_{2} 9.4 \\ L_{3} \\ 457 \\ 1750 \\ 286' \\ TAGE = 13 \end{array} $	
EL OR SERIAL NO	A 215 A C 203 DESIGN OR RATED 10 12.9 12.9 12.9 1740 1740 FIELD CHECKED VOLT	$ \begin{array}{r} ACTUAL \\ 102 \\ 7.94 \\ L_{1} \\ L_{2} 9.4 \\ L_{3} \\ 457 \\ 1750 \\ 286' \\ TAGE = 13 \end{array} $	2.98 7.24
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS RECTED FULL LOAD AMPS = -	AMEPLATE AMPS X VOL MOTOR OPERATING AM	$ \begin{array}{r} ACTUAL \\ 102 \\ 7.94 \\ L_{1} \\ L_{2} 9.4 \\ L_{3} \\ 457 \\ 1750 \\ 286' \\ TAGE = 13 \end{array} $	
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS RECTED FULL LOAD AMPS = - ROX. BHP = NAMEPLATE HP x	AMEPLATE AMPS X VOL MOTOR OPERATING AM CORRECTED F.L.A.	$ \begin{array}{c} ACTUAL \\ 10^{2} \\ 7.94 \\ L_{1} \\ L_{2} \\ 9.4 \\ L_{3} \\ 457 \\ 1750 \\ 286^{2} \\ 286^{2} \\ TAGE \\ $	7.24
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS	AMEPLATE AMPS X VOL MOTOR OPERATING AM	$ \begin{array}{c} ACTUAL \\ 10^{2} \\ 7.94 \\ L_{1} \\ L_{2} \\ 9.4 \\ L_{3} \\ 457 \\ 1750 \\ 286^{2} \\ 286^{2} \\ TAGE \\ $	
MOTOR H.P. BHP AMPERAGE VOLTAGE RPM MOTOR SHEAVE O.L. HEATERS RECTED FULL LOAD AMPS = -	AMEPLATE AMPS X VOL MOTOR OPERATING AM CORRECTED F.L.A.	$ \begin{array}{c} ACTUAL \\ 10^{2} \\ 7.94 \\ L_{1} \\ L_{2} \\ 9.4 \\ L_{3} \\ 457 \\ 1750 \\ 286^{2} \\ 286^{2} \\ TAGE \\ $	7.24

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NEW INAVY HOSPITHL UHMPLEJEUNE



	CIRCULAT	ING WATER PUMP	TEST REPOR	<u>T</u>		
OJECT NEW M	EDICAL	CENTER		GAMP L	ETEUN	
and the second second		집중 감독 전신 소설	and many to a star	JACK SO	NVILLE	
and the second second second			and the second second	NC.		
Section to a start			-	14 0.		
ISTEM P116		PUM	P LOCATION _	ROILER	ROON	
			R NUMBER			
	BELL + GO			100 million (100 m	a Chamler aller	
DEL OR SERIAL NO.	se 6×6×1	2		and a second		
	the strength of the strength of	1	1		1.00	
	1	DESIGN	BEFOREACTUA			
PUMP GPM PUMP RPM		880	1100	860		
	NO FLOW	0771	176	99		
DISCHARGE PRESSURE (psig)	FULL FLOW		75	87		
	NO FLOW		38	38		
SUCTION PRESSURE (psig)	FULL FLOW		35	36		
TOTAL HEAD	NO FLOW		140.7	140.7		
(FT H ₂ 0)*	FULL FLOW	110	92.3	117.6		
			and the second second	and the second		
	State -		Service Services			
TOTAL HEAD (FT H20) = F	PUMP DIFFERENTIAL	PRESSURE X 2.307				
OTOR MANUFACTURER	LINCOLN	and applied the first state of the	- Martine			
DEL OR SERIAL NO.	9265795					
		DECION OF PATER	1			
NOTOR UP		DESIGN OR RATED	ACTUA			
MOTOR HP BHP		50	42.3	C		
AMPERAGE		62.5	48 51	53		
		460	475 470	475	A Protect .	
VOLTAGE	1000	1770	1760	Reading on the second se		
VOLTAGE		1 110	1 180			
RPM				The second se		
			and the second			

CORRECTED FULL LOAD ANRS-	NAMEPLATE AMPS X VOLTAGE		60.24
CORRECTED FULL LOAD AMPS =	FIELD CHECKED VOLTAGE	_	

BHP = NAMEPLATE HP x MOTOR OPERATING AMPS CORRECTED F.L.A.

42.38 2

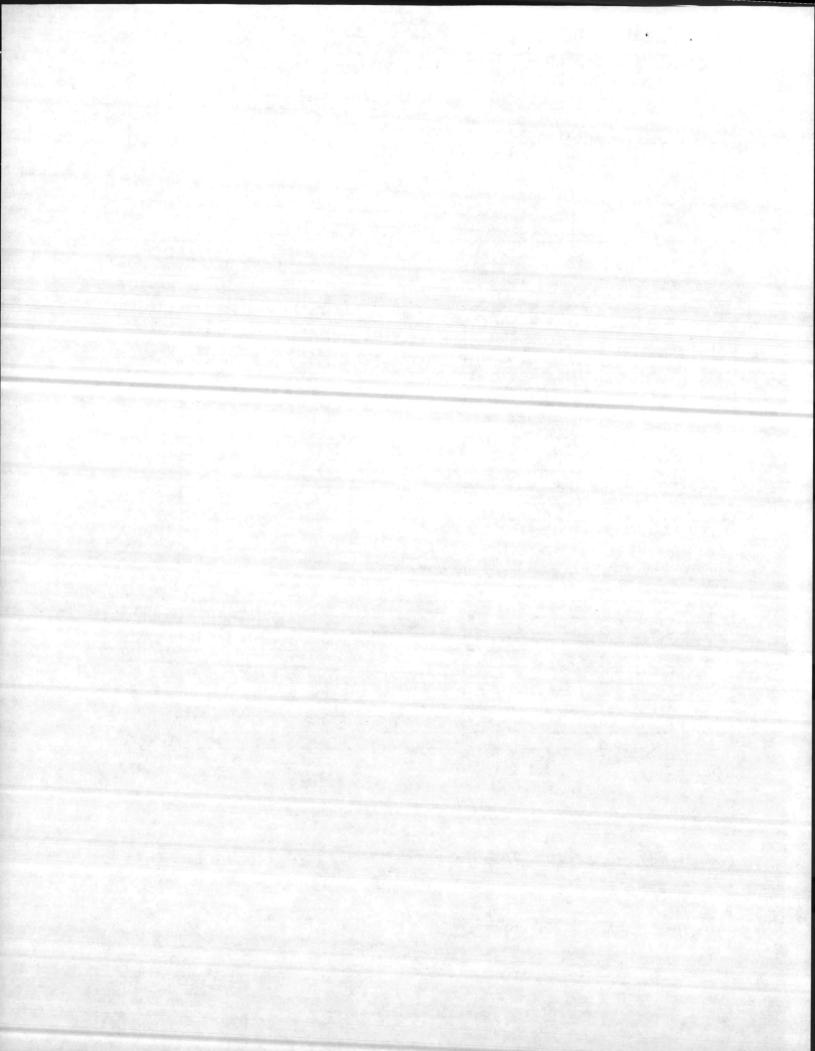
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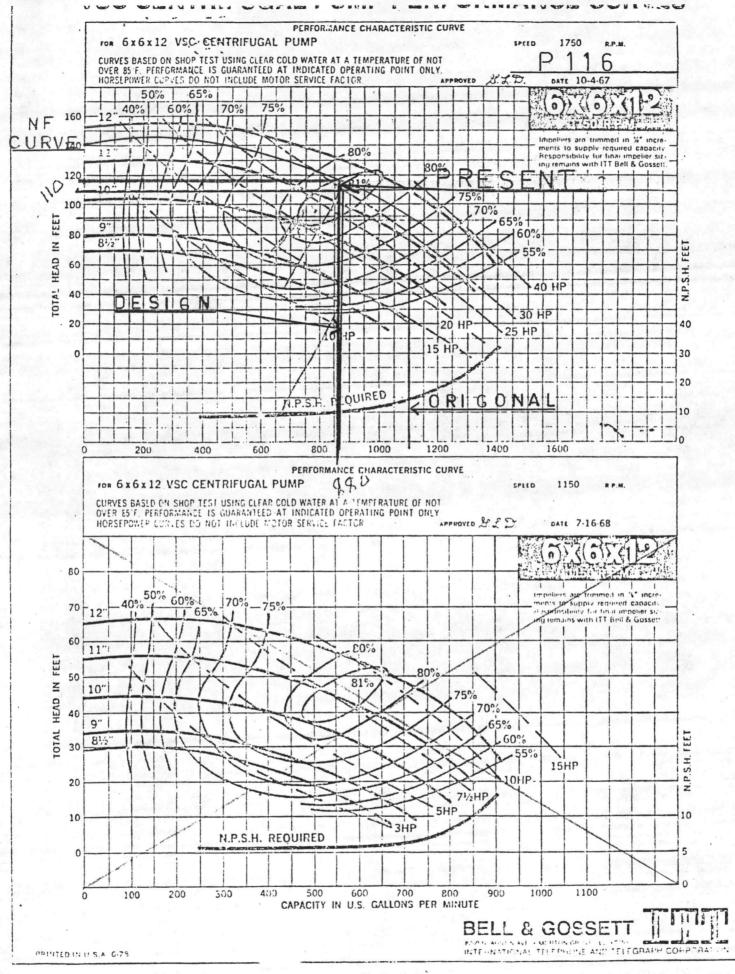
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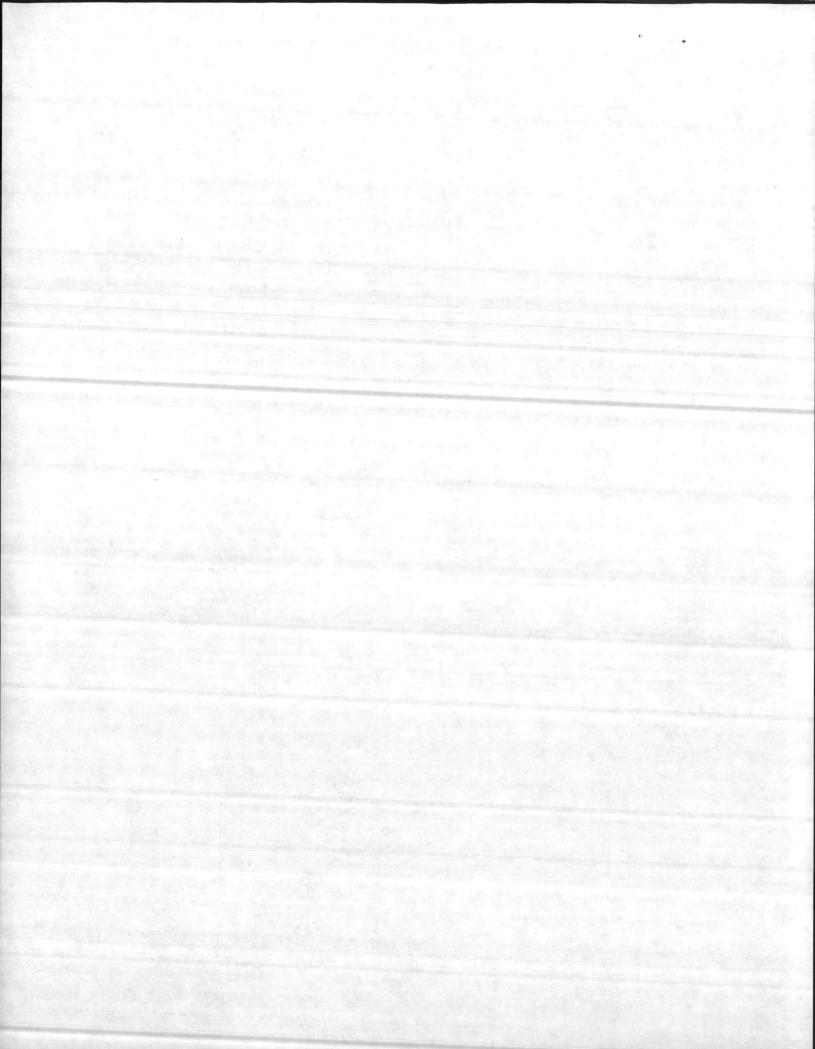
Division of Johnson Controls, Inc.

S.R.P

OF







MP MANUFACTURER <u>BEL</u> DEL OR SERIAL NO. <u>VSC</u>	L + G	PUM 0		CAMP L JACKSON N.C BOILER	VILLE
MP MANUFACTURER <u>BEL</u> DEL OR SERIAL NO. <u>VSC</u>	L + G	0	P LOCATION	N.C	er - Lader
MP MANUFACTURER BEL DEL OR SERIAL NO. VSC	L + G	0		A CARLES AND A CARLES	Room
UMP MANUFACTURER \underline{BEL}	L + G	0		A CARLES AND A CARLES	Room
UMP MANUFACTURER <u>BEL</u> DDEL OR SERIAL NO. <u>VSC</u>	L + G	0		BOILER	ROOM
DDEL OR SERIAL NO	L + G		RNUMBER		
DDEL OR SERIAL NO	L + G	OSSETT			in a set of
DDEL OR SERIAL NO	bxbx				and the second
		12		Salah Salah Salah Nebu	and a state server
	and the second		and the second		
		DESIGN	BEFORFACTU	AL AFTER	
PUMP GPM		880	1100	850	
PUMP RPM	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0771	175	0	
DISCHARGE PRESSURE NO	FLOW		101	The second second	
(psig) FUL	L FLOW	and the second second	74	85	
SUCTION PRESSURE NO	FLOW		37	and the second	
(psig) FUL	L FLOW		31	35	
	FLOW		147.7		
(FT H ₂ 0)* FUL	L FLOW	110	99.2	1245	
		Sector and the sector			
	NCOLN 5795	RESSURE X 2.507			
	T	DESIGN OR RATED	ACTU	AL	
MOTOR HP		50	50		- N
BHP			37.	19	
AMPERAGE		62.5	48 46		
		460		0 475	
VOLTAGE		1770	175		
VOLTAGE RPM					
the second s		P. State and the second	and the second		
RPM					

	NAMEPLATE AMPS A VULTAGE	
CORRECTED FULL LOAD AM	FIELD CHECKED VOLTAGE	
	NOTOR OPERATING AMPS	
BHP = NAMEPLATE HP x -	CORRECTED EL À	

CORRECTED F.L.A.

37.19 -

SHEET

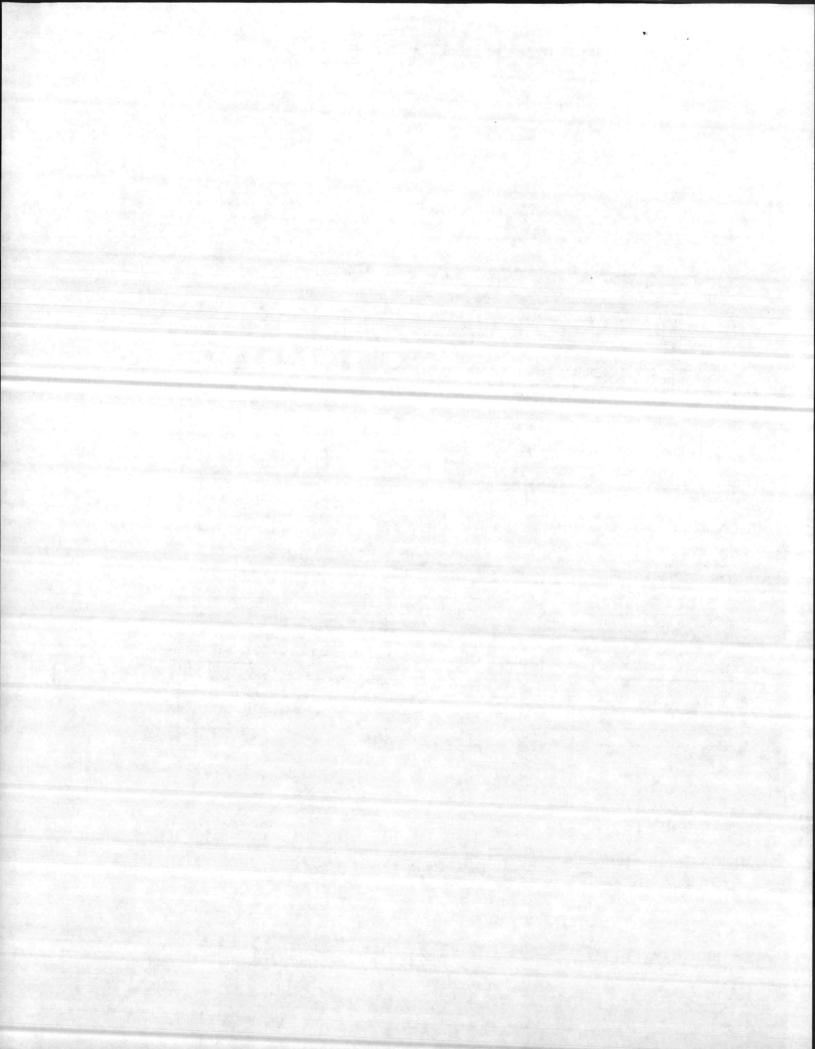
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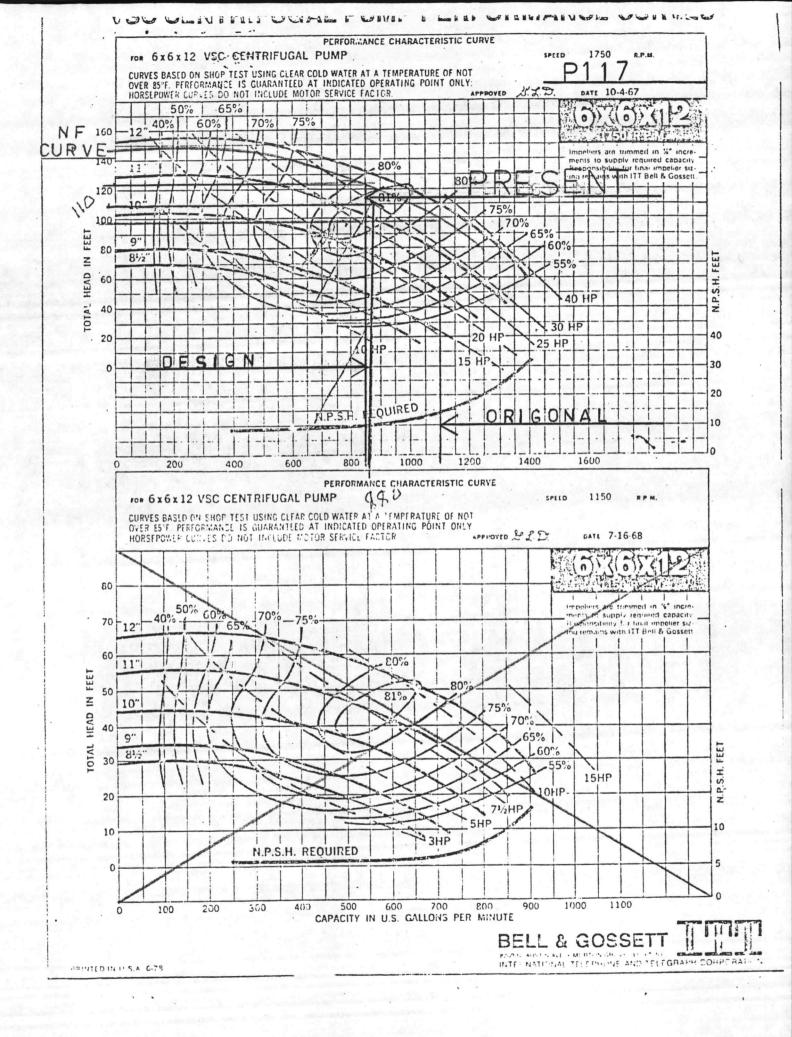
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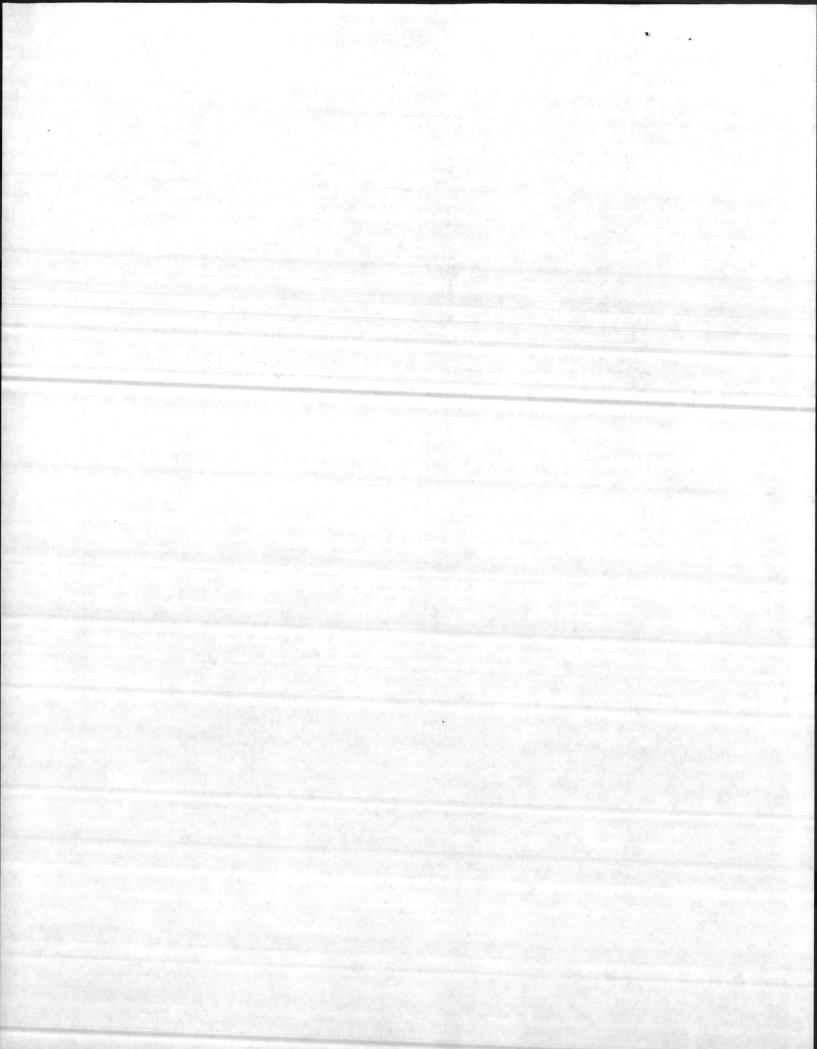
S.R.P

OF

FORM 1245 REV. 3/75







				RING
	CIRCULAT	ING WATER PUMP	TEST REPO	<u>RT</u>
ROIECT NEW M	EDICAL C	ENTER	LOCATION	CAMP LEJEUI
				JACKSONVILLE
and the second of the		and the second		
				N.C.
STEM <u>P118</u>			1P LOCATION	BOILER ROOM
MP MANUFACTURER	VSC 6x6	X/2		
	and the second second			
	· · · · · · · · · · · · · · · · · · ·	DESIGN	BEFOREACTU	
PUMP GPM PUMP RPM		880	1070	880
	NO ELOW	0771	176	25
DISCHARGE PRESSURE	NO FLOW		100	ese
	NO FLOW		8/	87.5
SUCTION PRESSURE	FULL FLOW		34.5	345
TOTAL HEAD	NO FLOW	And the second second	144.2	
(FT H ₂ 0)*	FULL FLOW	110	1023	122.2
TOTAL HEAD (FT H_2 0) = F TOR MANUFACTURER	PUMP DIFFERENTIAL LINCOLI 2265795	v		
DEL ON SERIAL NO.				
		DESIGN OR RATED		
MOTOR HP		50	50	
BHP		103	39.	
AMPERAGE		62.5	48 4	
VOLTAGE		460		0 475
RPM		0 77 1	1 176	>
O.L. HEATERS				

CORRECTED FULL LOAD AMPS =	NAMEPLATE AMPS X VOLTAGE	=	60.7	8
	FIELD CHECKED VOLTAGE		00.1	

BY

BHP = NAMEPLATE HP x MOTOR OPERATING AMPS CORRECTED F.L.A.

DATE 7/8/85

RP

SHEET ____

39.16

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OF

