FORM 100A

Customer CHARLESTON NAVAL SHIPYARD
Serial No. 87PT-11477-F48
Pump F48 x 48

Gorman-Rupp
A Subsidiary of The Gorman-Rupp Co.
Toccoa, Georgia 30577

Date 12-14-89
Tested By RVP
Test No. 6W

PUMP PERFORMANCE TEST RECORD
(SUCTION LIFT TEST)

RATING		PUMP DATA	TEST DRIVER *				MISC. DATA			
GPM	47000	IMPELLER PATT.	D-6016-L	HP	700	RPM 352	VENTURI METER/CONSTANT	36" 2739.85		WATER TEMP (°F)
FT. HD.	40	IMPELLER DIA.	55.75-42.0	MAKE	SIEMENS-ALLIS	SERIAL NO. 48265	PANEL NO. —	DISCHARGE DIA. (In.) 48	Z_d (in.)	1
RPM	** N_2 = 260	VANE TIPS	.75	VOLTS 2300	AMPS 209	S.F. 1.15	EFF. (.00) —	PRESSURE GA. 30" MANO	SUCTION DIA. (in.) 45.25	Z_s (in.)	11.5

TEST READINGS

No.	P_d (~~Bar~~) in Hg	Ps (In. Hg.)	~~kW~~ HP	N_1	h (In. H_2O)		
1	6.6	1.3	54.0	118	0	0	
2	6.3	1.4	56.7	118	16" 11000	17	
3	6.1	1.4	57.2	118	30" 15000	34	
4	5.7	1.6	58	118	41" 17500	42	
5	5.6	1.6	59.5	118	59" 20969	60	
6	5.3	1.65	62	118	71" 23000	75	
7	5.0	1.75	64.1	118	85" 25208	85	
8	4.2	1.90	65.5	118	101" 27500	108	
9	3.6	1.90	65.5	118	120" 30000	123	
10	2.9	2.0	65.5	118	145" 33000	144	

(FOR CALCULATED DATA, SEE ATTACHED COMPUTER PRINTOUT)

COMMENTS:

* TESTED W/ DODGE-MASTER-REEVES SPEED REDUCER GEAR BOX.
HP: 300
RATIO: 3.045
EFF: .9702

** TEST RPM: 118

Signed _____ TEST DEPT.
Signed RQ Pelot ENGINEER
Signed _____ WITNESS

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RATING		PUMP DATA	TEST DRIVER *				MISC. DATA		
GPM 47000		IMPELLER PATT. D-6016-L	HP 700		RPM 352		VENTURI METER/CONSTANT 36" 2739.85		WATER TEMP (^oF)
FT. HD. 40		IMPELLER DIA. 55.75-42.0	MAKE SIEMENS-ALLIS		SERIAL NO. 48265		PANEL NO. —	DISCHARGE DIA. (in.) 48	Z_d (in.) 1
RPM ** N_2 = 260		VANE TIPS .75	VOLTS 2300	AMPS 209	S.F. 1.15	EFF. (.00) —	PRESSURE GA. 30" MANO	SUCTION DIA. (in.) 45.25	Z_s (in.) 11.5

TEST READINGS

No.	P_d (Psi) in Hg	Ps (In. Hg.)	~~HP~~ HP	N_1	h (In. H_2O)		
1	2.3	2.10	65.3	118	159" 34500	157	
2	1.2	2.20	65.5	118	176" 36900	178	
3	0.9	2.20	65.5	118	185" 37250	185	
4							
5							
6							
7							
8							
9							
10							

(FOR CALCULATED DATA, SEE ATTACHED COMPUTER PRINTOUT)

COMMENTS:

Signed _____ TEST DEPT.

Signed R&R Pelot ENGINEER

Signed _____ WITNESS

PATTERSON PUMP COMPANY, TOCCOA GA. FORM 100B

CALCULATED DATA

PUMP PERFORMANCE TEST, SUCTION LIFT

SERIAL NO. : 87PT-11477-F48 DATE : 12-14-89 PUMP TYPE : F48x48 CUSTOMER : CHARLESTON NAVAL SHIYARD

INPUT DATA

RATED SPEED	DRIVER EFFICIENCY	VENTURI METER CONSTANT	DISCHARGE DIA.	SUCTION DIA.	C/L PUMP TO C/L DISCH. GA.	C/L PUMP TO C/L SUCT. TAP
N2 = 260 RPM	ndriver = 0.970	k = 2739.85	Dd = 48.00 in.	Ds = 45.25 in.	Zd = 1.00 in.	Zs = 11.50 in.

NO.	TEST READINGS (REFER TO FORM 100A) Pd(in.Hg)	Ps(in.Hg)	bhp	N1(RPM)	h(in.H2O)	CALCULATED DATA AT TEST SPEED Q1(GPM)	H1(FT.)	whp	ehp	bhp1	npump	CALCULATED DATA AT RATED SPEED Q2(GPM)	H2(FT.)	bhp2 @1.0 S.G.	B. @ 1.0 S.
1	6.60	1.30	54.00	118	0.00	0.00	9.99	0.00	54.00	52.39	.000	0.00	48.51	560.44	57
2	6.30	1.40	56.70	118	17.00	11,296.69	9.75	27.81	56.70	55.01	.506	24,891.02	47.33	588.46	60
3	6.10	1.40	57.20	118	34.00	15,975.93	9.51	38.35	57.20	55.50	.691	35,201.21	46.15	593.65	60
4	5.70	1.60	58.00	118	42.00	17,756.26	9.27	41.57	58.00	56.27	.739	39,123.96	45.01	601.95	61
5	5.60	1.60	59.50	118	60.00	21,222.79	9.14	48.99	59.50	57.73	.849	46,762.08	44.38	617.52	63
6	5.30	1.65	62.00	118	75.00	23,727.80	8.84	52.99	62.00	60.15	.881	52,281.60	42.93	643.47	65
7	5.00	1.75	64.10	118	85.00	25,260.17	8.61	54.90	64.10	62.19	.883	55,658.01	41.78	665.26	68
8	4.20	1.90	65.50	118	108.00	28,473.36	7.85	56.43	65.50	63.55	.888	62,737.90	38.10	679.79	69
9	3.60	1.90	65.50	118	123.00	30,386.41	7.15	54.89	65.50	63.55	.864	66,953.10	34.73	679.79	69
10	2.90	2.00	65.50	118	144.00	32,878.20	6.45	53.58	65.50	63.55	.843	72,443.50	31.33	679.79	69
11	2.30	2.10	65.30	118	157.00	34,330.22	5.87	50.92	65.30	63.35	.804	75,642.87	28.52	677.72	69
12	1.20	2.20	65.50	118	178.00	36,554.16	4.72	43.57	65.50	63.55	.686	80,543.06	22.92	679.79	69
13	0.90	2.20	65.50	118	185.00	37,265.99	4.37	41.16	65.50	63.55	.648	82,111.51	21.23	679.79	69

SIGNED _____ TEST DEPT.

SIGNED _____ ENGINEER

SIGNED _____ WITNESS