

FILE FOLDER

DESCRIPTION ON TAB:

TT23

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- Outside/inside of actual folder did contain hand written information**
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Bldg #	Location	Linear ft
611	Berkley Manor	115'
614	Stone St	80 '90'
LCH 4006	Midway Park	100'
621	Piney Green Rd	100'
627	Sneads Ferry Rd	85'
RR 227	Rifle Range	100'
TT-638 (relocated)	Karawa Terrace	75' (90?)
639	Sneads Ferry Rd	81'

info from Woody Myers

Clank ^{with Pump} Engage

Time at

- 1800 RPM

Disengage - + Stop Aux Meter

1910

1910

1

2

3

4

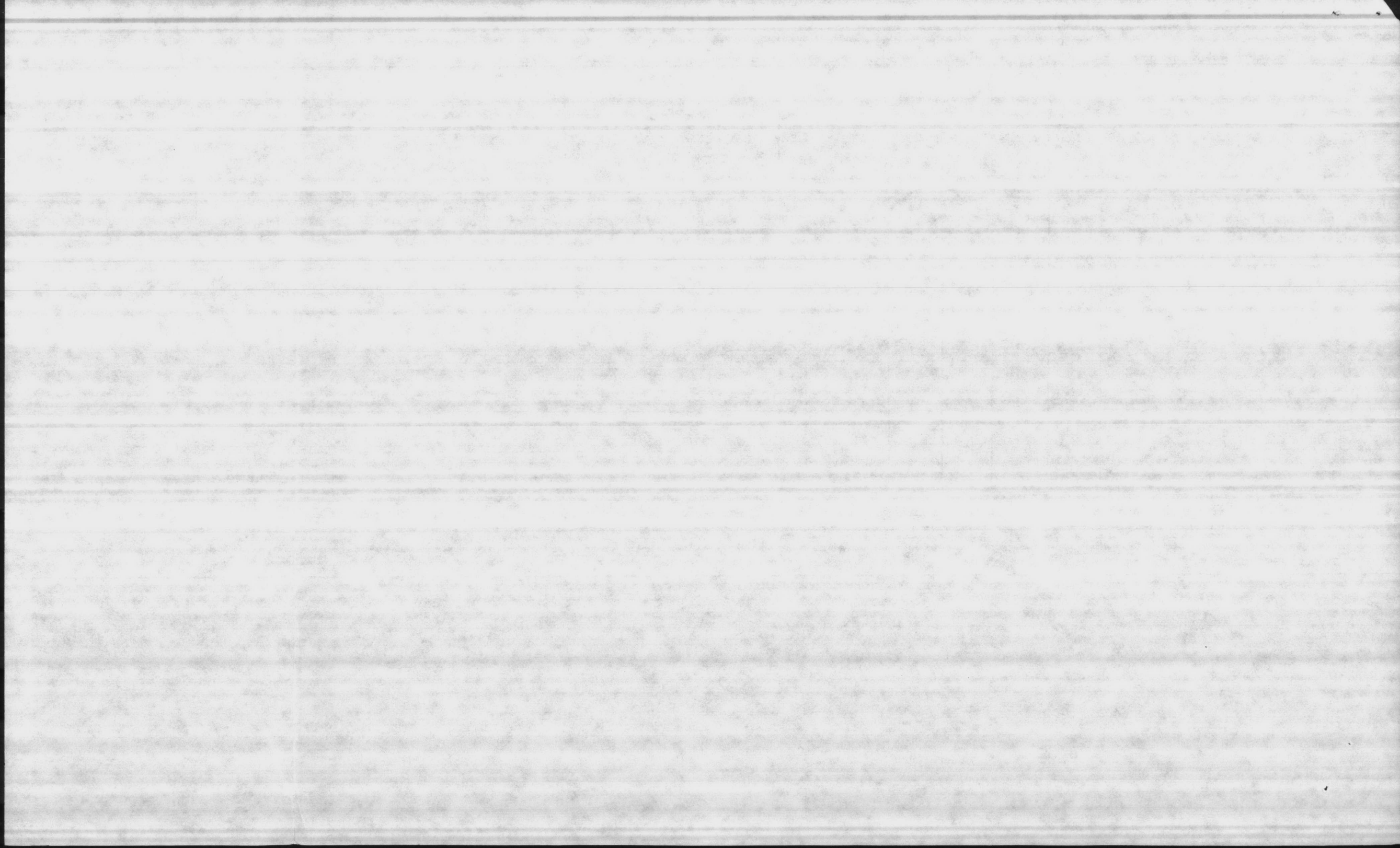
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6

8 WATER WELLS - MINING CORP BNSC - CAMP

No	LOCATION	Pump Data		Motor HP	Grate Dia	6" Dia	V. Depth	1st Screen Setting	2nd Screen Setting	3rd Screen Setting	4th Screen Setting	5th Screen Setting	Ft. to Water		Pump Rate GPM
		Model	Stages										Static	Dynamic	
11	Berkley Manor	8MS	8	20	20	70	45	65-75	115-135	132-137	-	-	35	49	500
4	Stone Street	8MS	8	20	20	80	44	106-100	150-170	217-227	-	-	15	80	500
4006	MIDWAY PARK	8HL	8	30	40	80	42	90-114	116-134	-	-	-	25	70	450
21	PINEY GREEN RD	8MS	6	15	20	70	40	60-70	125-135	160-170	220-230	-	18'-7"	54'-9"	200
27	SNEEDS FERRY RD	8MS	6	15	20	70	40	50-65	87-102	125-135	-	-	14	44	175
R 227	RIPLE ROAD	8HL	8	25	40	80	35	190-210	223-235	242-247	-	-	23	58	300
638	TARAWA TERRACE	8MS	6	15	20	85	35	70-95	132-142	-	-	-	27	63	160
39	SNEEDS FERRY RD	8MS	6	15	20	70	42	121-131	134-146	185-195	215-220	225-230	4	96	200

replace these wells — 10-10-84



CONSOLIDATED PUMP & EQUIPMENT, INC.

DISTRIBUTORS AND MANUFACTURER REPRESENTATIVES • WATER & WASTE WATER TREATMENT
POST OFFICE BOX 3188 • ROCK HILL, SOUTH CAROLINA 29730 • 803/328-1891

March 28, 1983

SUBMITTAL DATA

JOB:

Replace Water Wells
Camp Lejeune, N. C.

Engineer:

Peirson & Whitman, Inc.

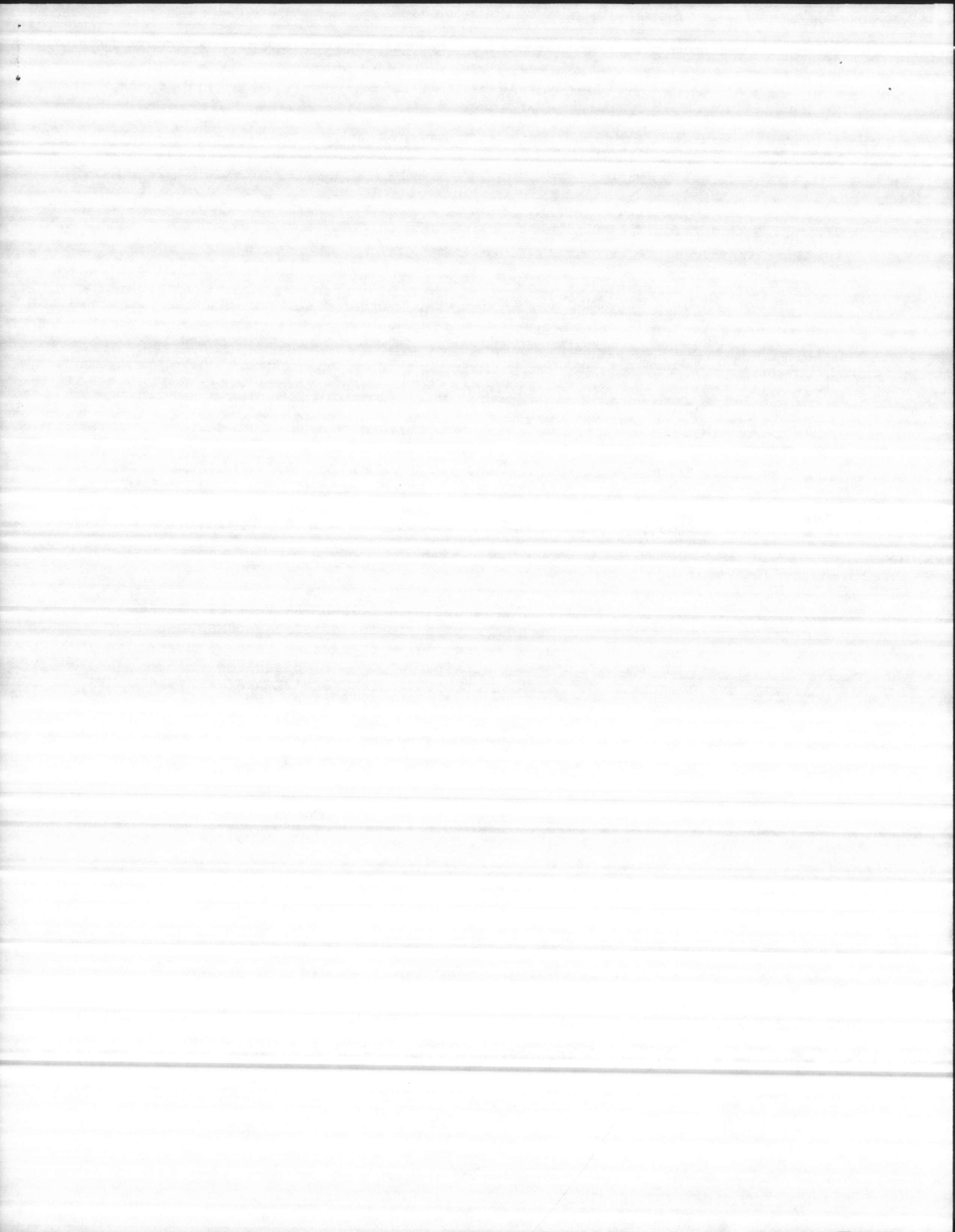
Contractor:

East Coast Construction Co.

Material Submitted:

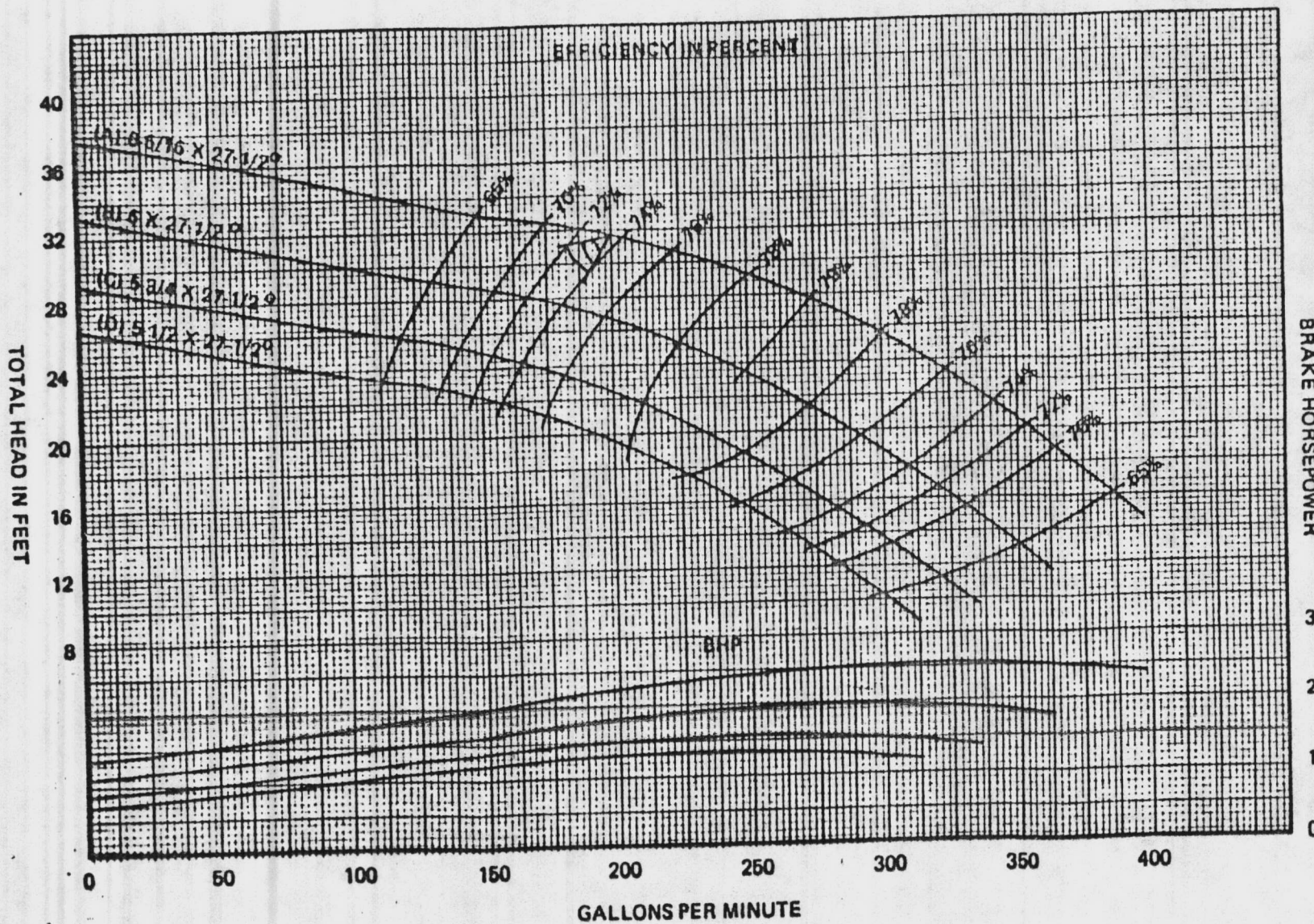
- 8 - Jacuzzi Model 15-SMSA6 Verticle Turbine Pump consisting of 6 stage SMS pump head, 10' - 6" suction pipe with cone strainer, 100' - 6" discharge column, 1" drive shaft, model L6A discharge head, model S-20 Combination Right Angle Gear Drive, 1 : 1 Ratio, and 15 HP V. H. S. motor.

Conditions of service 200 GPM @ 190.5' TDH



TURBINE PUMP CURVE

8MS
SECTION
2120
MAY 15, 1970



NUMBER OF BOWLS	CHANGE EFFICIENCY AS FOLLOWS
1	-4
2	-3
3	-2
4	-1

Change in efficiency may affect both head and horsepower

Bowl Dia. 7-1/2 In.
Bowl No. 3591-S, C.I., ENAM.
Impeller No. 3590, BRONZE
Eye Area 6.6 Sq. In.
Imp. Type SEMI-OPEN K = 4.28

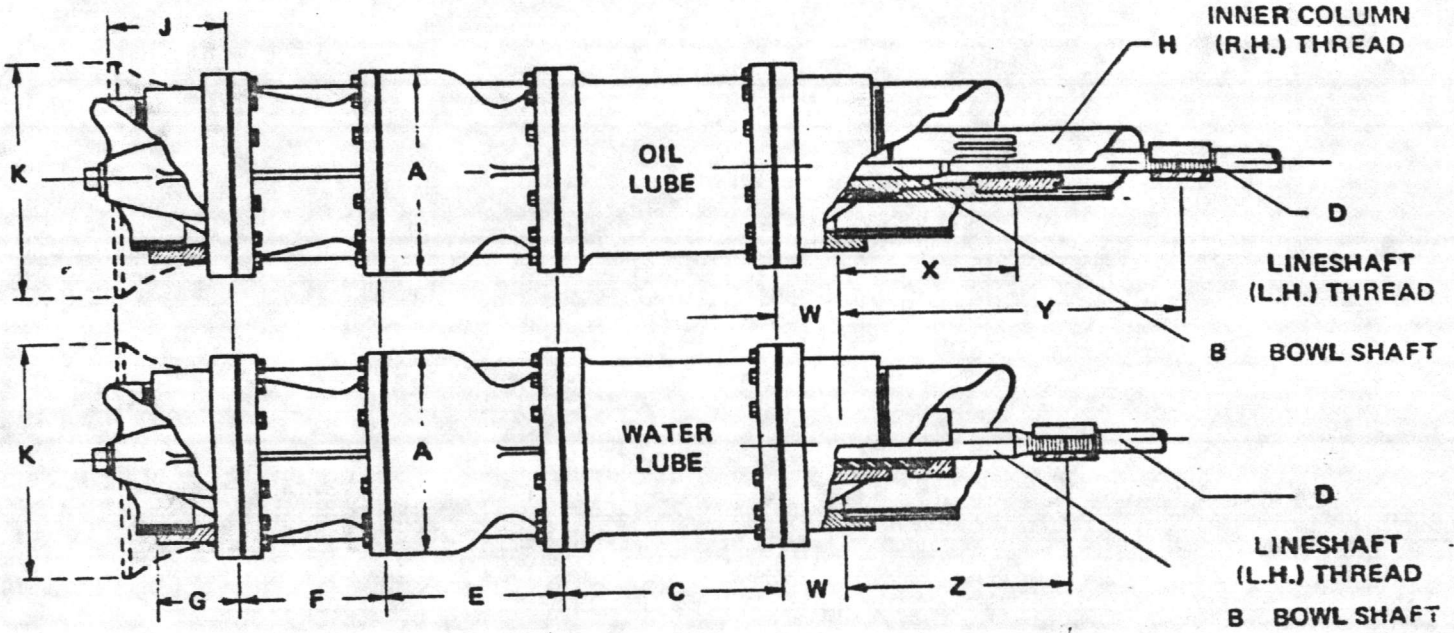
STAGE PERFORMANCE
Curve No. 8M-172
R. P. M. 1780
Bowl 8MS

Performance based on pumping clear, fresh water at a temperature not over 85°F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.

BRAKE HORSEPOWER
3
2
1
0



Turbine Bowl

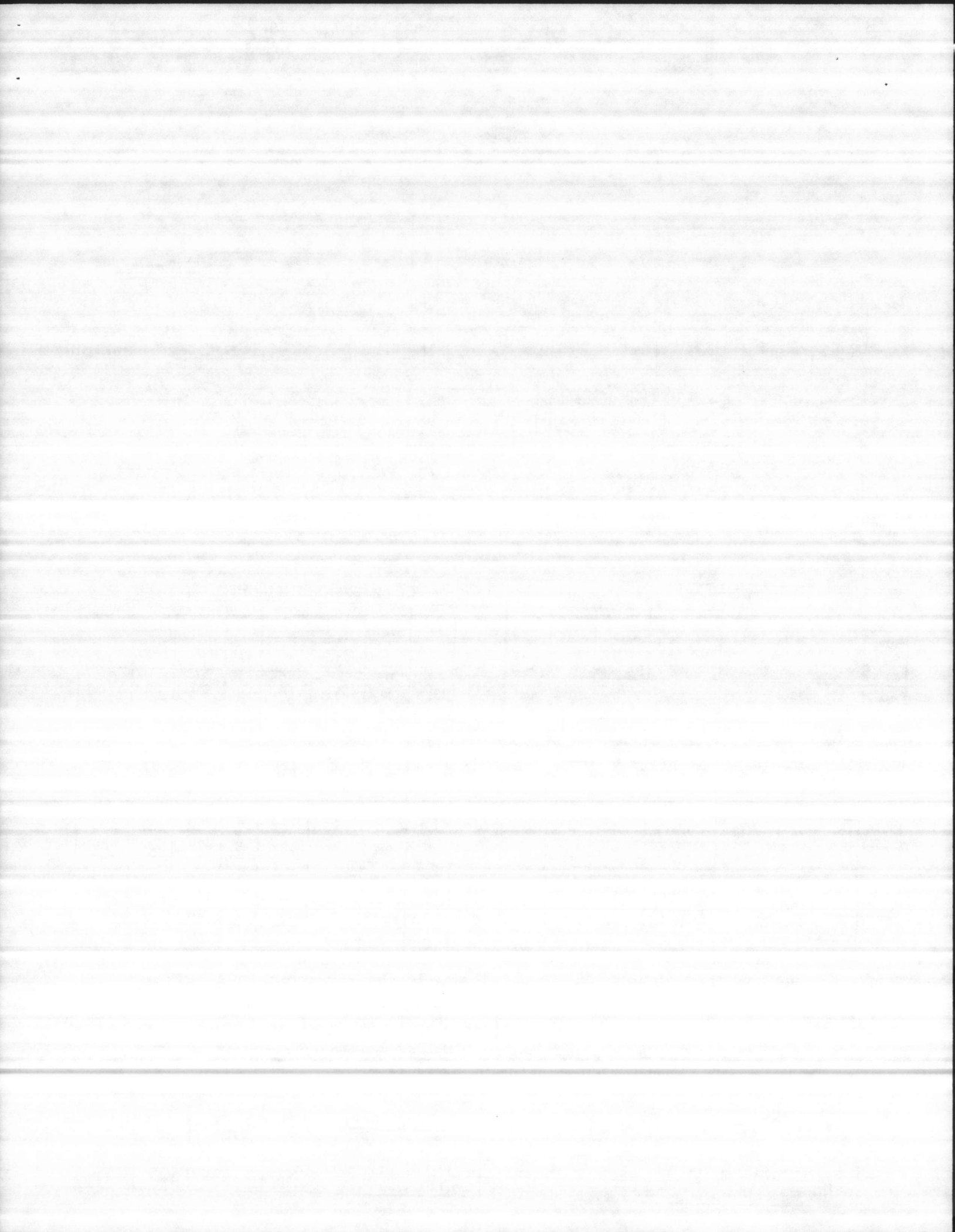


ALL DIMENSIONS IN INCHES.

Nom. Bowl Size	Bowl Figure Number	Bowl Dia. Max. O.D. STD. A	Bowl Dia. Turned ALT. A	B	C	E	F	Max. G	Suction Bell		W	O.L.		W.L.	Available Outer Column and Suction Pipe
									J	K		X	Y		
6	6J,6L	5 5/8		3/8	4 1/2	3 1/2	3 1/2	5	4	7 1/2	3	9 1/2	22	7 1/2	3, 4, 5
	1			4 1/4		4, 5, 6									
8	8J,8L,8K,8M,8H	7 7/8	7 1/2	1	6	5 1/2	4	5	4 1/2	9 1/4	3	9 1/2	22	7 1/2	4, 5, 6
	8Y	7 1/8		1 1/8		7 1/2									
10	10L,10M,10H	9 1/2	9 1/4	1 1/2	8	7	6	4 1/8	5 1/2	11 1/4	3	9 1/2	22	7 1/2	4, 5, 6, 8
10	10W,10Y,10Z	9 3/4	9 1/2	1 1/8	8 1/2	8 1/2	6 1/2	5 1/8	7	14 1/4	3	9 1/2	22	7 1/2	6, 8, 10
12	12L, 12M, 12H, 12X	11 1/8	11 1/4	1 1/8	9	10 1/2	5 1/2	3 1/2	6	13 1/4	3	9 1/2	22	7 1/2	6, 8, 10
12	12W	12 1/8	12	1 1/8	9	11 1/4	5 1/2	3 1/2	6	13 1/4	3	9 1/2	22	7 1/2	6, 8, 10
14	14L,14M 14H,14X	13 1/2	13 1/4	1 1/8	9 3/8	12 1/2	7 1/8	5 1/8	8	15 1/4	3	9 1/2	22	7 1/2	8, 10, 12
14	14W	14 1/8	13 3/4	1 1/8	9 3/8	13 1/4	7 1/8	5 1/8	8	15 1/4	3	9 1/2	22	7 1/2	8, 10, 12
16	ALL	15 1/2	15 1/4	1 1/8	9 3/8	15	8	6 1/8	10	22	3	9 1/2	22	7 1/2	10, 12, 14
20	ALL	19 1/4	19 1/4	1 1/8	14	18	12	6 1/8	12 1/2	27	3	9 1/2	22	7 1/2	12, 14, 16
24	ALL	23 1/2	23 1/2	2 1/8	20	21	14	3 1/8	14	32	1	16 1/2	29	14 1/2	12, 14, 16, 18
28	ALL	27	27	2 1/8	24	24	15	3 1/8	16	38	1	16 1/2	29	14 1/2	14, 16, 18, 20

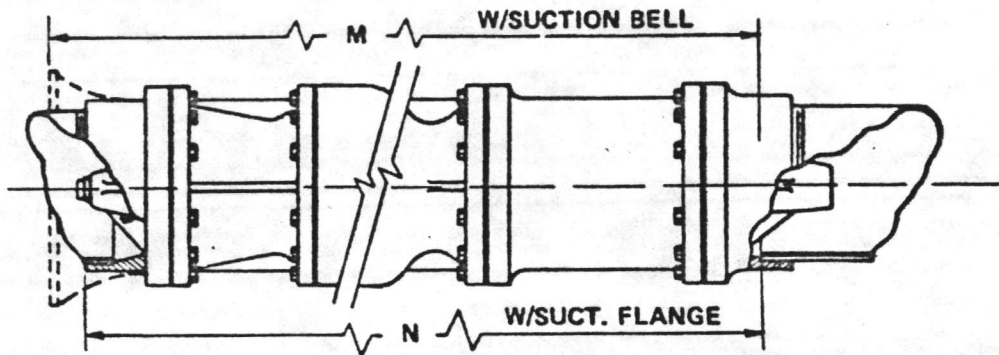
* Note: Maximum Diameter for 24" Bowl is Discharge Column Flange at 25" and for 28" is 27 1/2".

D	Lineshaft Dia. & Pitch (L.H.)	3/8	1	1 1/8	1 1/2	1 3/8	1 1/2	1 3/8	2 1/8	2 1/8	2 1/8	2 1/8
		16P.	12P.	12P.	12P.	12P.	12P.	12P.	12P.	8P.	8P.	8P.
H	O.L. Inner Col. & Thread (R.H.)	1 1/8	1 1/2	2	2 1/2	3	3 1/2	3 1/2	4	5	5	5
		1 1/8-12P.	1 1/8-12P.	2 1/8-12P.	2 1/2-12P.	3 1/8-12P.	3 1/2-12P.	3 1/2-12P.	4-8P.	5-8P.	5-8P.	5-8P.



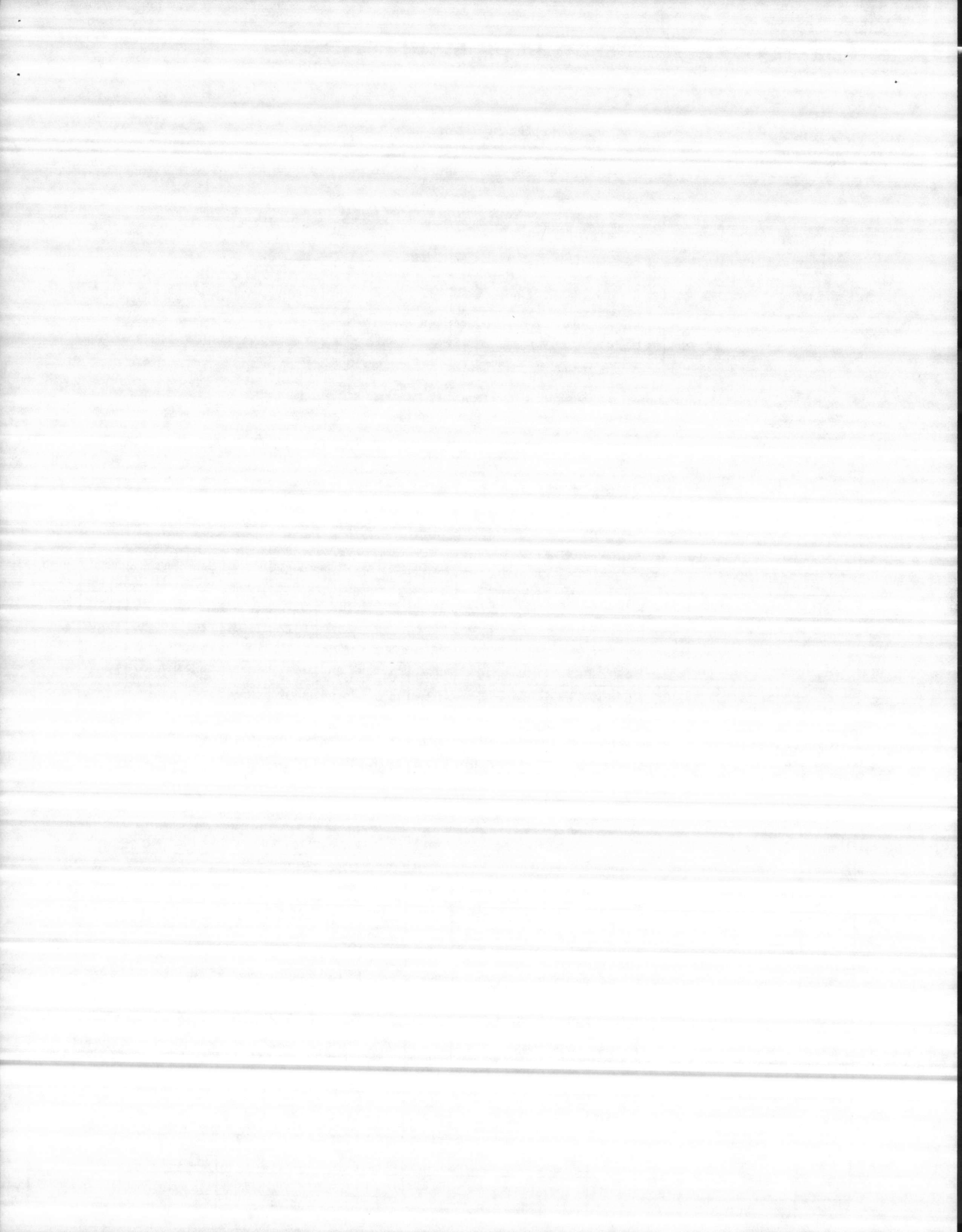
DIMENSIONS

Turbine Bowl

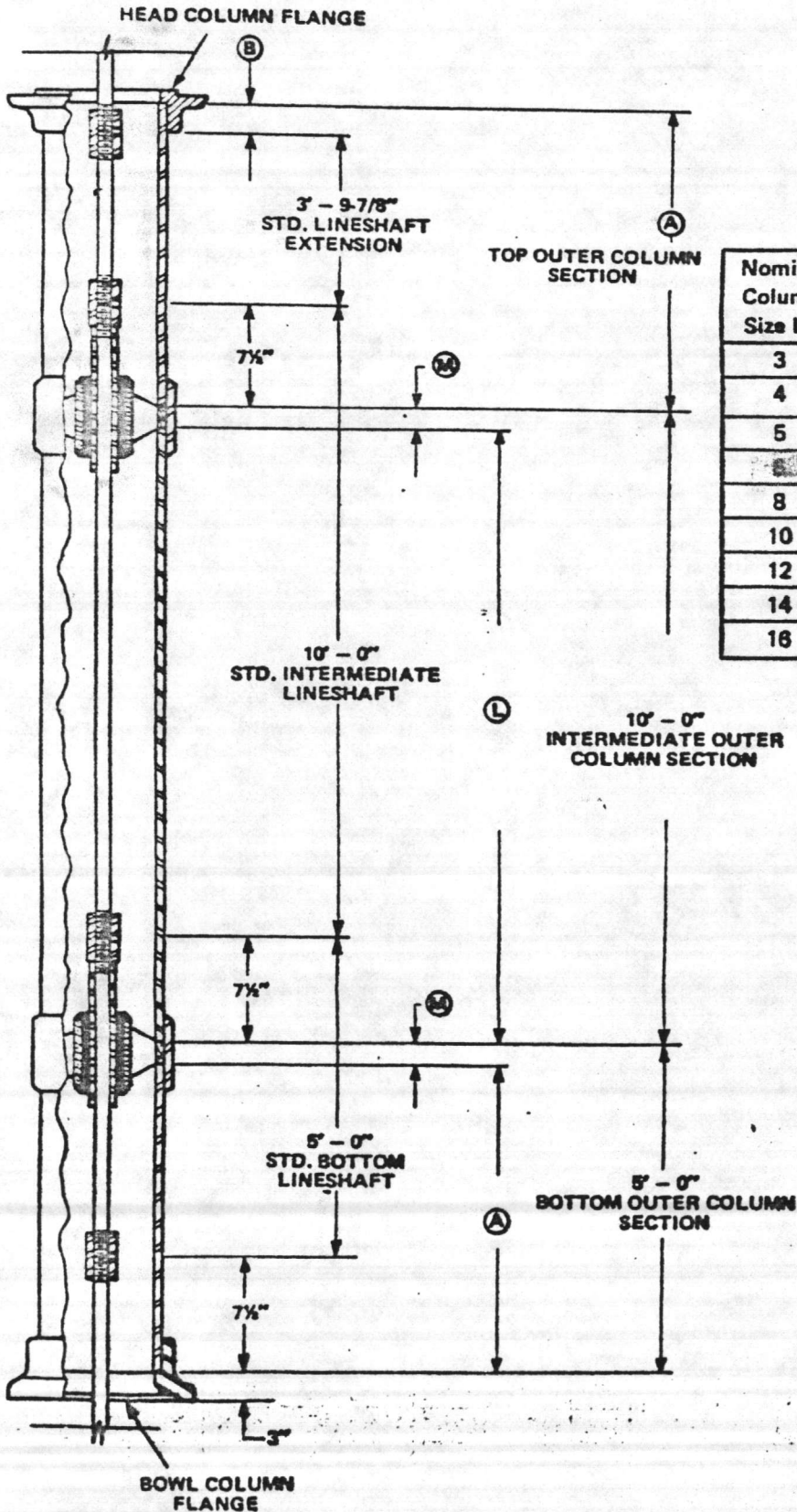


Nom. Bowl Size	Bowl Figure Number	(M) = BOWL ASSEMBLY LENGTH W/SUCTION BELL - INCHES													
		NUMBER OF BOWLS													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
6	6L	18½	22	25½	29	32½	36	39½	43	46½	50	53½	57	60½	64
	6M,H,X,W,Y	19¼	24¼	29¼	34	38½	43½	48¼	53	57¼	62¼	67¼	72	76¼	81¼
	8J,8L,8K,8M,8H	23¼	28¼	34¼	40	45¼	51¼	56¼	62¼	68¼	73¼	79¼	85	90¼	96¼
8	8Y	25	32½	40	47½	55	62½	70	77½	85	92½	100	107½	115	122½
10	10L,M,H	29¼	36¼	43¼	50¼	57¼	64¼	71¼	78¼	85¼	92¼	99¼	106¼	113¼	120¼
10	10W,Y,Z	34¼	42¼	51¼	59¼	68¼	76¼	85¼	93¼	102¼	110¼	119¼	127¼	136¼	144¼
12	12L, M, H, X	33¼	44¼	54¼	65¼	75¼	86¼	96¼	107¼	117¼	128¼	138¼	149¼	159¼	170¼
12	12W	34¼	45¼	57	68¼	79¼	90¼	102	113¼	124¼	135¼	147	158¼	169¼	180¼
14	14L,M,H,X	40¼	53¼	65¼	78¼	90¼	103¼	115¼	128¼	140¼	153¼	165¼	178¼	190¼	203¼
14	14W	41¼	54¼	68	81¼	94¼	107¼	121	134¼	157¼	160¼	174	187¼	200¼	213¼
16	ALL	46	61	76	91	106	121	136	151	166	181	196	211	226	241
20	ALL	59¼	77¼	95¼	113¼	131¼	149¼	167¼	185¼	203¼	221¼	239¼			
24	ALL	70	91	112	133	154	175	196	217	238	259				
28	ALL	80	104	128	152	176	200	224	248	272					

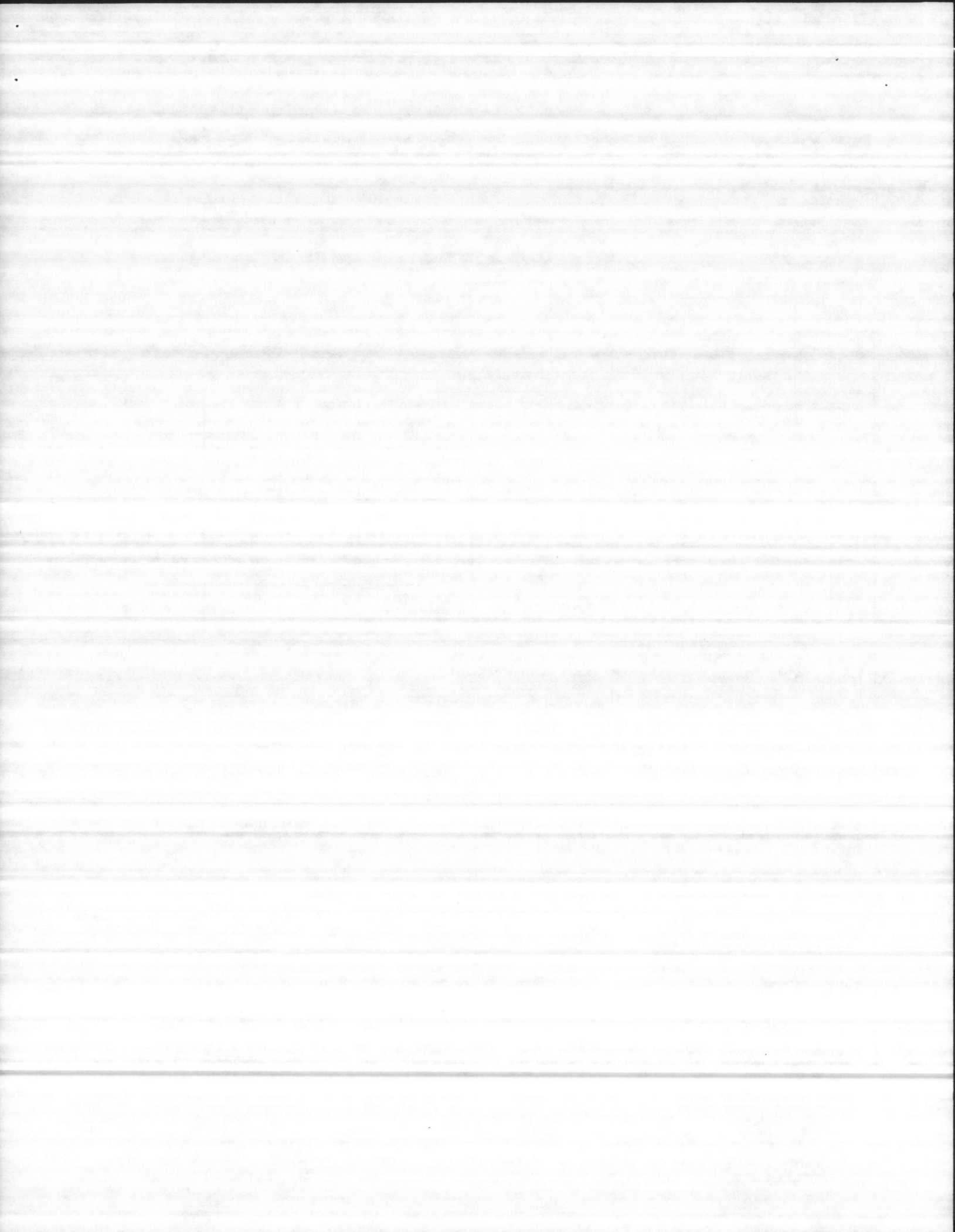
Nom. Bowl Size	Bowl Figure Number	(N) = BOWL ASSEMBLY LENGTH W/SUCTION FLANGE - INCHES													
		NUMBER OF BOWLS													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
6	6L	19½	23	26½	30	33½	37	40½	44	47½	51	54½	58	61½	65
	6M,H,X,W	20¼	25¼	30¼	35	39¼	44¼	49¼	54	58¼	63¼	68¼	73	77¼	82¼
8	8J,8L,8K,8M,8H	23¼	29¼	34¼	40¼	46¼	51¼	57¼	63	68¼	74¼	79¼	85¼	91¼	96¼
8	8Y	25½	33	40½	48	55½	63	70½	78	85½	93	100½	108	115½	123
10	10L,M,H	28¼	35¼	42¼	49¼	56¼	63¼	70¼	77¼	84¼	91¼	98¼	105¼	112¼	119¼
10	10W,Y,Z	33¼	41¼	50¼	58¼	67¼	75¼	84¼	92¼	101¼	109¼	118¼	126¼	135¼	143¼
12	12L, M, H, X	31¼	42	52¼	63	73¼	84	94¼	105	115¼	126	136¼	147	157¼	168
12	12W	32¼	44¼	55¼	67	78¼	89¼	100¼	112	123¼	134¼	145¼	157	168¼	179¼
14	14L,M,H,X	38¼	51¼	63¼	76¼	88¼	101¼	113¼	126¼	138¼	151¼	163¼	176¼	188¼	201¼
14	14W	39¼	52¼	65¼	79¼	92¼	105¼	118¼	132¼	145¼	158¼	171¼	185¼	198¼	211¼
16	ALL	42¼	57¼	72¼	87¼	102¼	117¼	132¼	147¼	162¼	177¼	192¼	207¼	222¼	237¼
20	ALL	53¼	71¼	89¼	107¼	125¼	143¼	161¼	179¼	197¼	215¼	233¼			
24	ALL	59¼	80¼	101¼	122¼	143¼	164¼	185¼	206¼	227¼	248¼				
28	ALL	67¼	91¼	115¼	139¼	163¼	187¼	211¼	235¼	259¼					



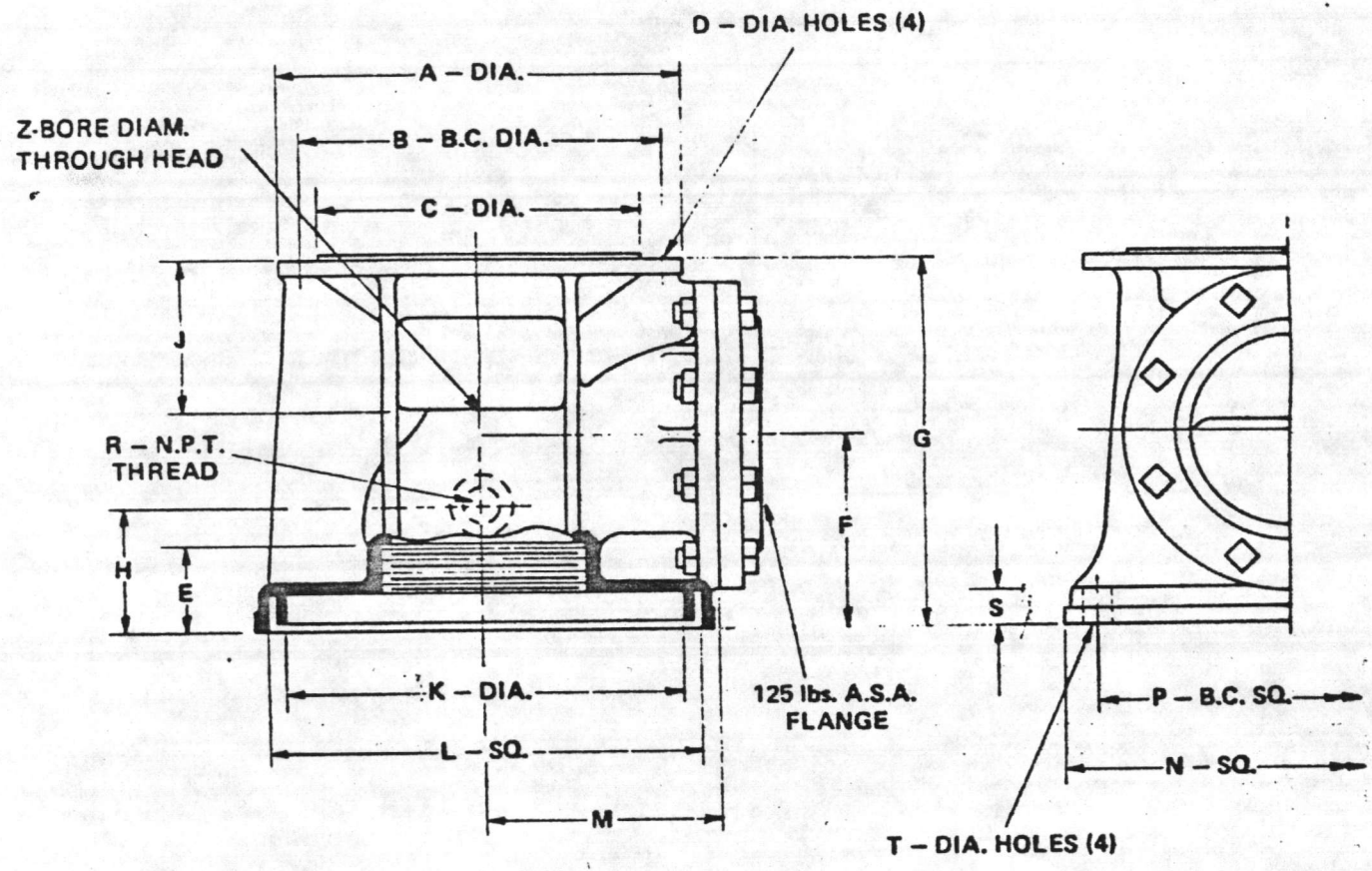
Turbine Column – Water-Lube, Butt Joint



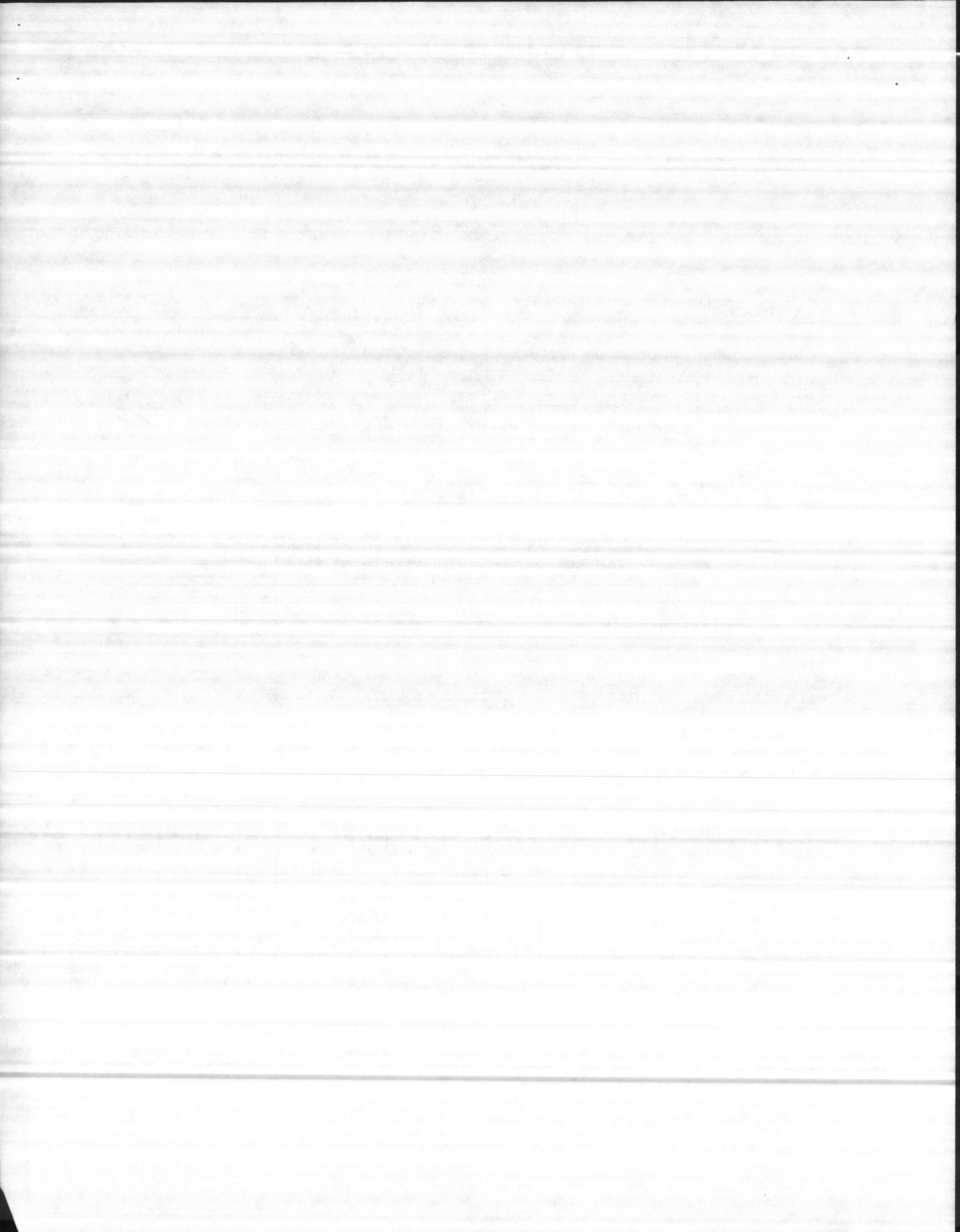
Nominal Column Size In.	A	B	L	M
3	4'11 1/2"	6 1/2"	9'11 1/2"	1/2"
4				
5	4'11 1/4"	5 3/4"	9'11 1/4"	3/4"
8				
10				
12				
14				
16				



Cast, Standard Discharge Heads



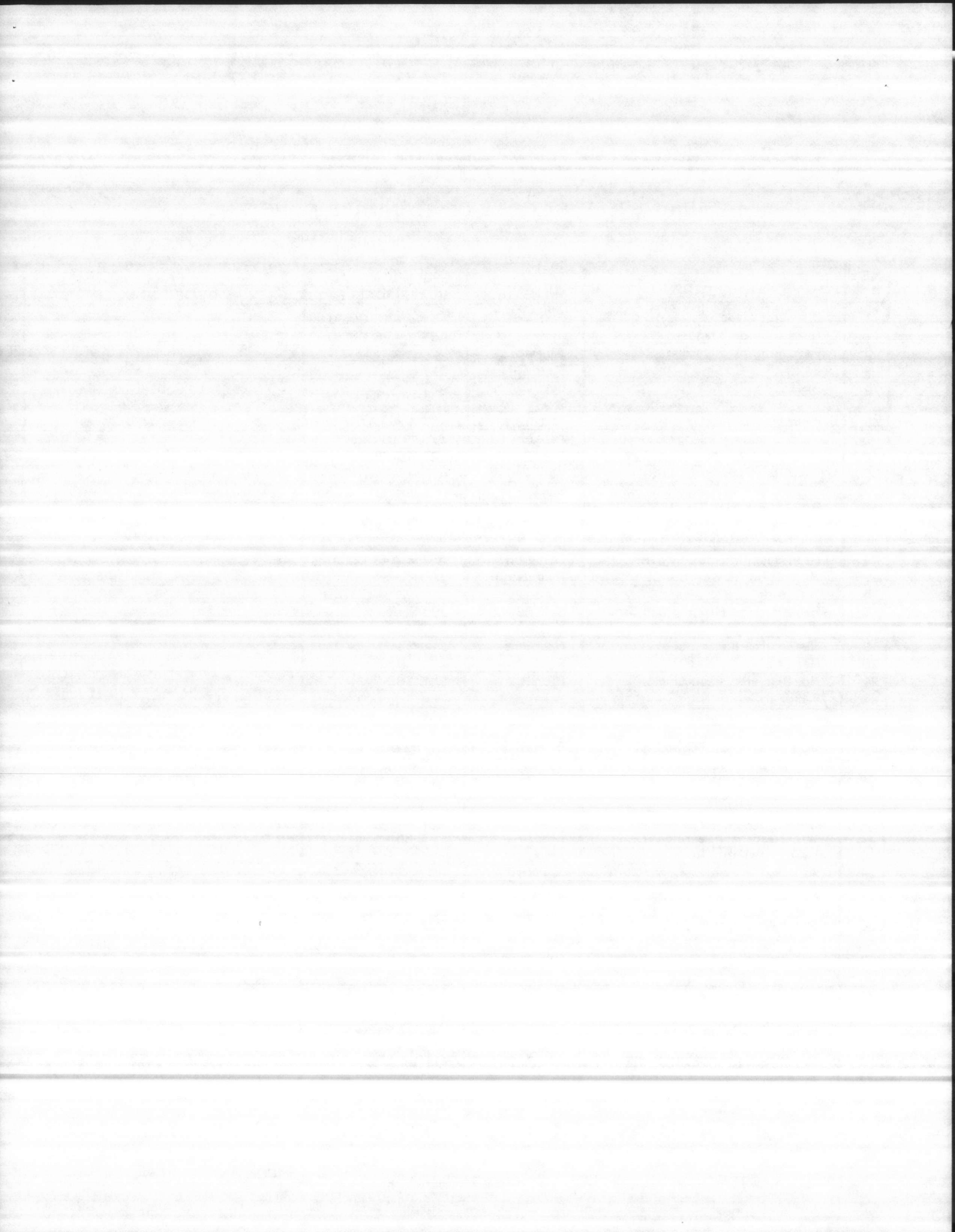
Head	Max. Size (In.)	Inner Col.	Outer Col. (In.)	DIMENSIONS INCHES																	
				A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	Z
L5A	6	1½	5	10	9¾	8¾	¾	3¾	8¾	15¾	4¾	6¾	14¾	14¾	8¾	15¾	13¾	1	1¾	¾	2¾
L5AB																					3¾
L6A	6	1½	6	10	9¾	8¾	¾	3¾	8¾	15¾	4¾	6¾	14¾	14¾	8¾	15¾	13¾	1	1¾	¾	2¾
L6AB																					3¾
L8C	8	2	8	16¾	14¾	13¾	¾	3¾	7¾	15¾	4¾	6¾	16¾	17¾	9¾	18¾	15¾	1½	1½	1½	3¾
L8CD																					3¾
L10C	10	2½	10	16¾	14¾	13¾	¾	4¾	9¾	18¾	5¾	6¾	16¾	18¾	10¾	19¾	16¾	1½	1½	1½	3¾



Water Lubricated Turbine Pump

MATERIAL SPECIFICATIONS OF STANDARD CONSTRUCTION

KEY NO.	DESCRIPTION	MATERIAL	SPECIFICATION IF APPLICABLE	PART ORDER NUMBER
1	Discharge Head	Cast Iron	ASTM A48 CL.30	
2	Head Column Flange	Cast Iron	ASTM A48 CL.30	
3	Head Column Flange Gasket	Asbestos		
4	Studs (Hd. Column Flange Assy)	Steel	C1137	
5	Nuts (Used W/Key No. 4 Head Column Flange Assy)	Low Carbon Steel	ASTM A-307	
6	Head Discharge Flange	Cast Iron	ASTM A-126	
7	Head Discharge Flange Gasket	Asbestos		
8	Discharge Flg. Assy. Cap Scr.	Steel	ASTM A-301	
9	Discharge Flg. Assy. Nuts (Used with Key No. 8)	Low Carbon Steel	ASTM A-307	
10	Head Dsch. Flg. Assy. Studs	Steel	C1137	
11	Head Dsch. Flg. Assy. Nuts (Used With Key No. 10)	Low Carbon Steel	ASTM A-307	
14	Head Packing Housing W/Brg. Includes Key No. 32	Cast Iron (Pkg. Hsg.)	ASTM A48 CL.30	
15	"O" Ring	Buna-N		
16	Head Packing Housing Cap Scr.	S. Steel	300 Series	
18	W/L Headshaft	S. Steel	AISI 316	
19	Headshaft Flinger	Neoprene		
20	Headshaft Adj. Nut	Steel	C-1213	
21	Hd. Pkg. Hsg. Sand Shield	Bronze	SAE 660	
22	Packing (Set)	Asbestos		
23	Packing Follower	Bronze	SAE 40	
25	Hd. Pkg. Housing Grease Fittings	Steel		
26	Packing Follower Studs	S. Steel	AISI 416	
27	Packing Follower Retn. Nuts	S. Steel	300 Series	
28	Adapter Flange	Cast Iron	ASTM A48 CL45	
29	Adapter Flange O-Ring	Buna-N		
30	Adapter Flg. Assy. Cap Screws	S. Steel	300 Series	
32	W/L Headshaft Bearing	Bronze	SAE 660	
33	Headshaft Gib Key	Steel		
34	Adj. Nut Machine Screw	S. Plated		
67	Shaft Coupling (Hd. Shaft, Line Shaft, Bowl Shaf.)	Steel	C1137	
68	Shaft Adapter Coupling Hd/Sht, L/Sht., Bowl/Sht	Steel	C1137	
69	O/C Coupling	Blk. Steel	ASTM A-120-57T Grade B	
76	W/L O/C Section	Black Steel	ASTM A-120-57T Grade B	
77	W/L O/C Section	Black Steel	ASTM A-120-57T Grade B	
78	W/L L/S Bearing Spider	Brass		
79	W/L L/S Bearing	Rubber		

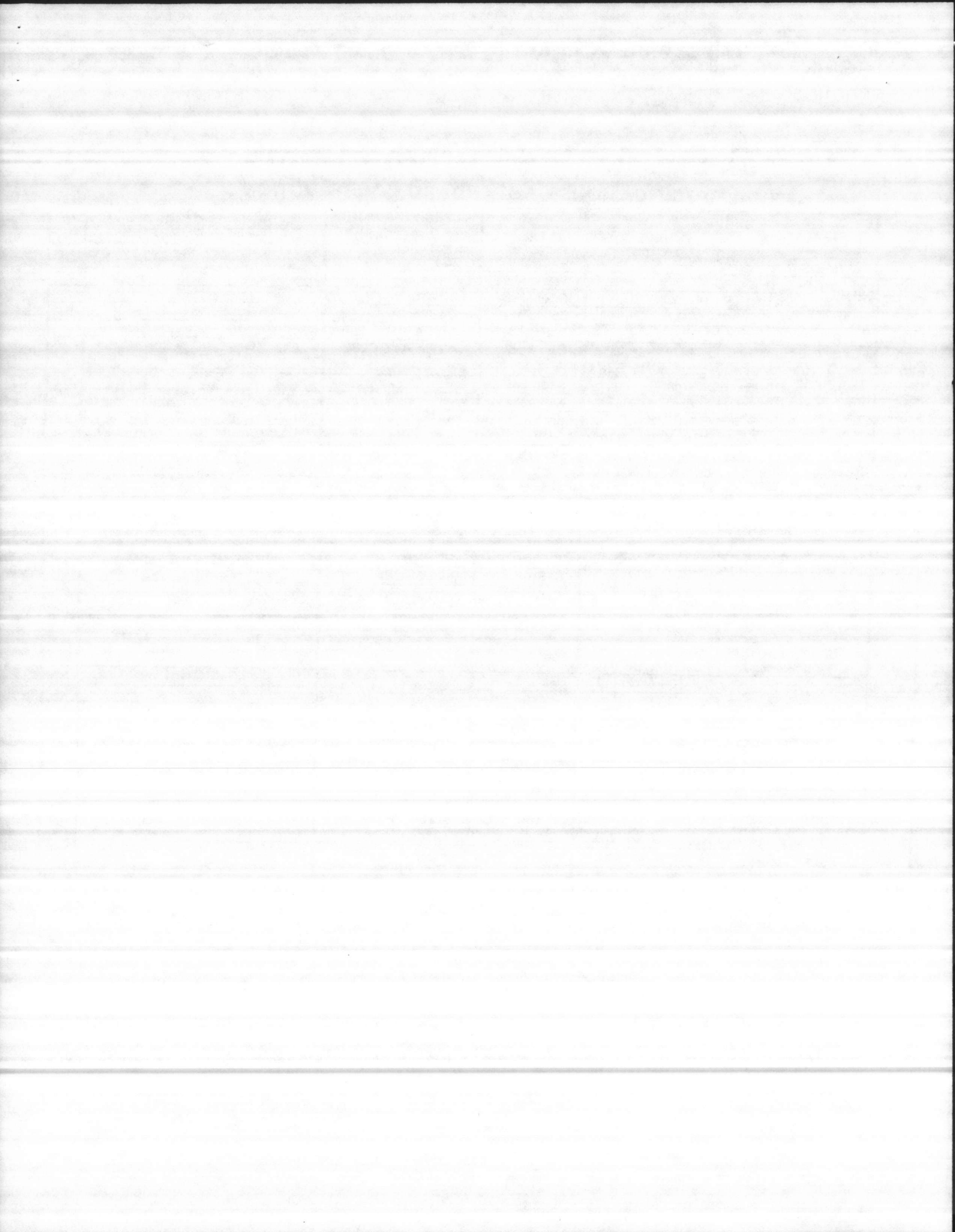


June 1, 1974

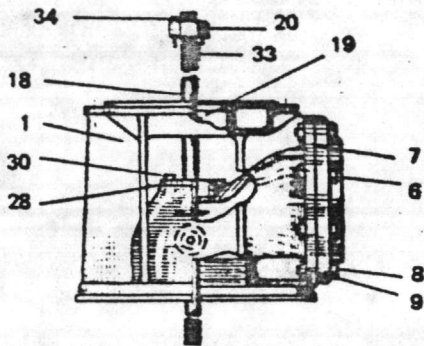
Water Lubricated Turbine Pump

MATERIAL SPECIFICATIONS OF STANDARD CONSTRUCTION

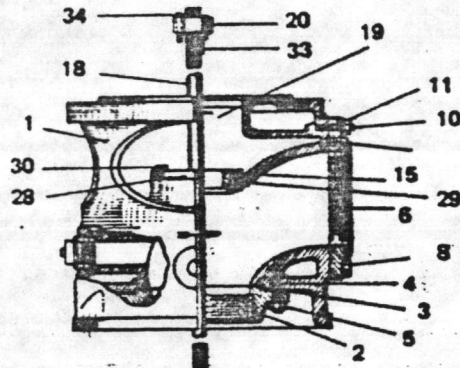
KEY NO.	DESCRIPTION	MATERIAL	SPECIFICATION IF APPLICABLE	PART ORDER NUMBER
80	W/L S/S Sleeve	S. Steel	304	
81	W/L L/S Extension 3' - 9 7/8" Lg.	Steel	C-1045	
82	W/S L/S Section (5' - 0" Lg.)	Steel	C-1045	
83	W/L L/S Section 10' - 0" Lg.	Steel	C-1045	
84	W/L Bowl Shaft	S. Steel	AISI 416	
90	W/L Discharge Housing Assy (Includes Key No. 91 & No. 92)	Cast Iron	ASTM A48 CL30	
91	W/L Upper Disch. Hsg. Brg.	Neoprene		
92	W/L Lower Disch. Hsg. Brg.	Neoprene		
93	W/L Disch. Hsg. Brg. Sand Cap	Bronze	SAE 40	
94	Sand Cap Set Screws (For K. No. 93)	S. Steel	300 Series	
103	Bowl Assy. (Closed Type) Includes Key No. 104	Cast Iron	ASTM A48 CL 30	
104	Bowl Bearing	Bronze	SAE 794	
105	Bowl Assy. (Semi-Open Type) Includes Key No. 104	Cast Iron	ASTM A48 CL30	
106	Impeller (Closed Type)	Bronze	SAE 40	
107	Impeller (Semi-Open Type)	Bronze	SAE 40	
108	Taper Lock	S. Steel	416 SS	
109	Brg. Stage Assy. (Closed Type) Includes Key No. 110	Cast Iron	ASTM A48 CL30	
110	Bearing Stg. Bearing	Bronze	SAE 660	
111	Brg. Stg. Assy. (Semi-Open) Includes Key No. 110	Cast Iron	ASTM A48 CL30	
112	Pipe Plug (For Key No. 109 & No. 111)	Galv. Steel		
113	Bearing Stage End Plug	Galv. Steel		
114	Bearing Stage Sand Cap	Bronze	SAE 40	
115	Sand Cap Set Screws (For K. No. 114)	S. Steel	300 Series	
116	Bowl Suction Flange	Cast Iron	ASTM A48 CL30	
117	Bowl Assy. Cap Screws	S. Steel	300 Series	
119	Suction Bell (Optional; Delete Key No. 116 if Suct. Bell is Used)	Cast Iron	ASTM A48 CL30	
152	W/L O/C Assy. T & C (Nom. 5' Lg.) (Assy of Key No. 69 & No. 76)	Black Steel	ASTM A-120-57T Grade B	
153	W/L O/C Assy T & C (Nom. 10' Lg.) (Assy of Key No. 69 & No. 77)	Black Steel	ASTM A-120-57T Grade B	



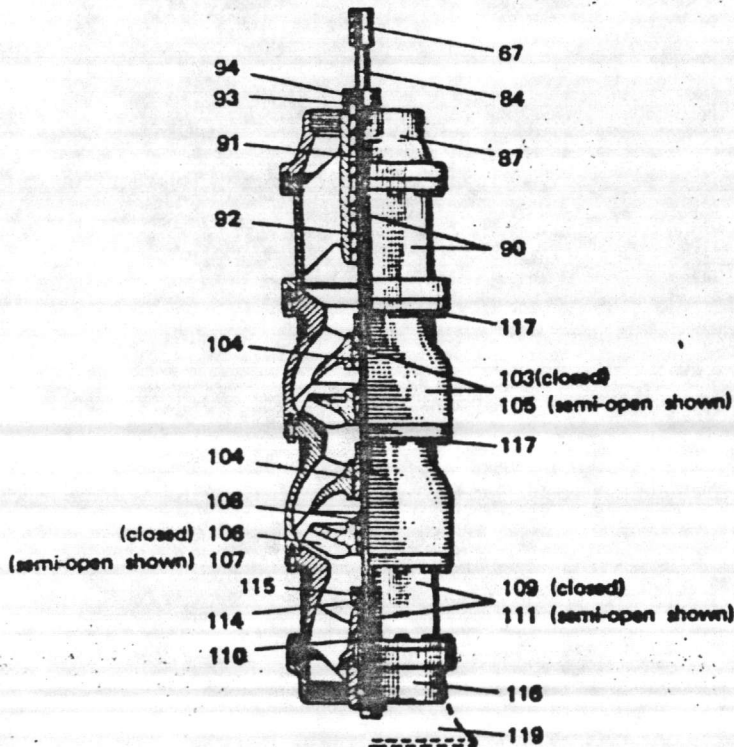
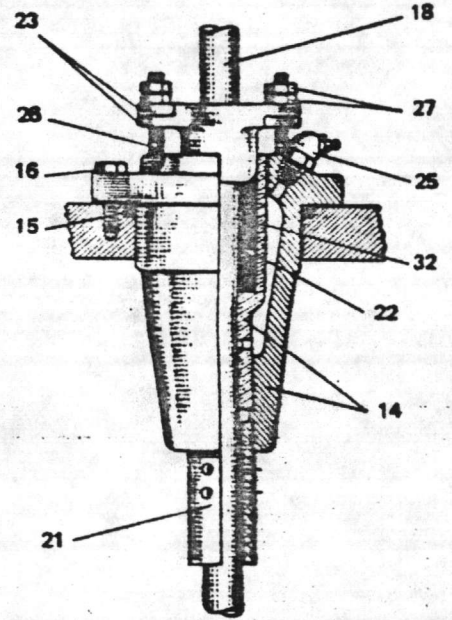
WATER LUBRICATED TURBINE PUMP PARTS DIAGRAM



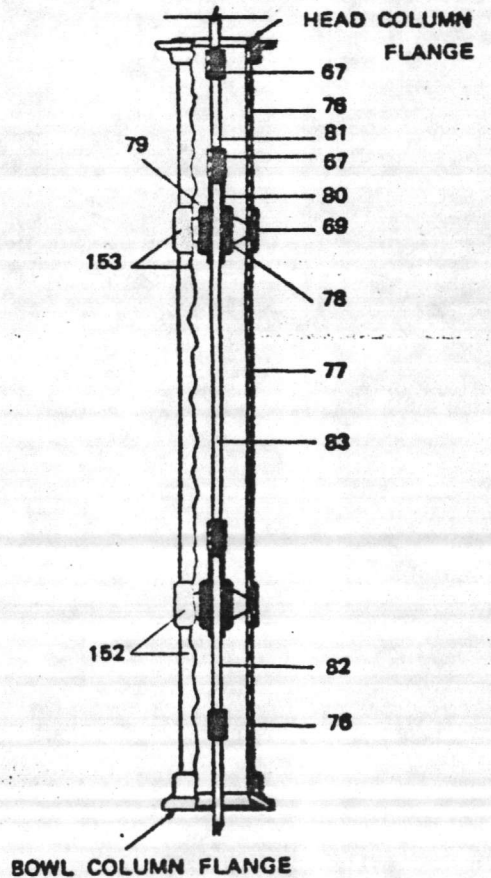
TYPICAL STANDARD HEAD



TYPICAL HEAVY DUTY HEAD



BOWL ASSEMBLY



BOWL COLUMN FLANGE

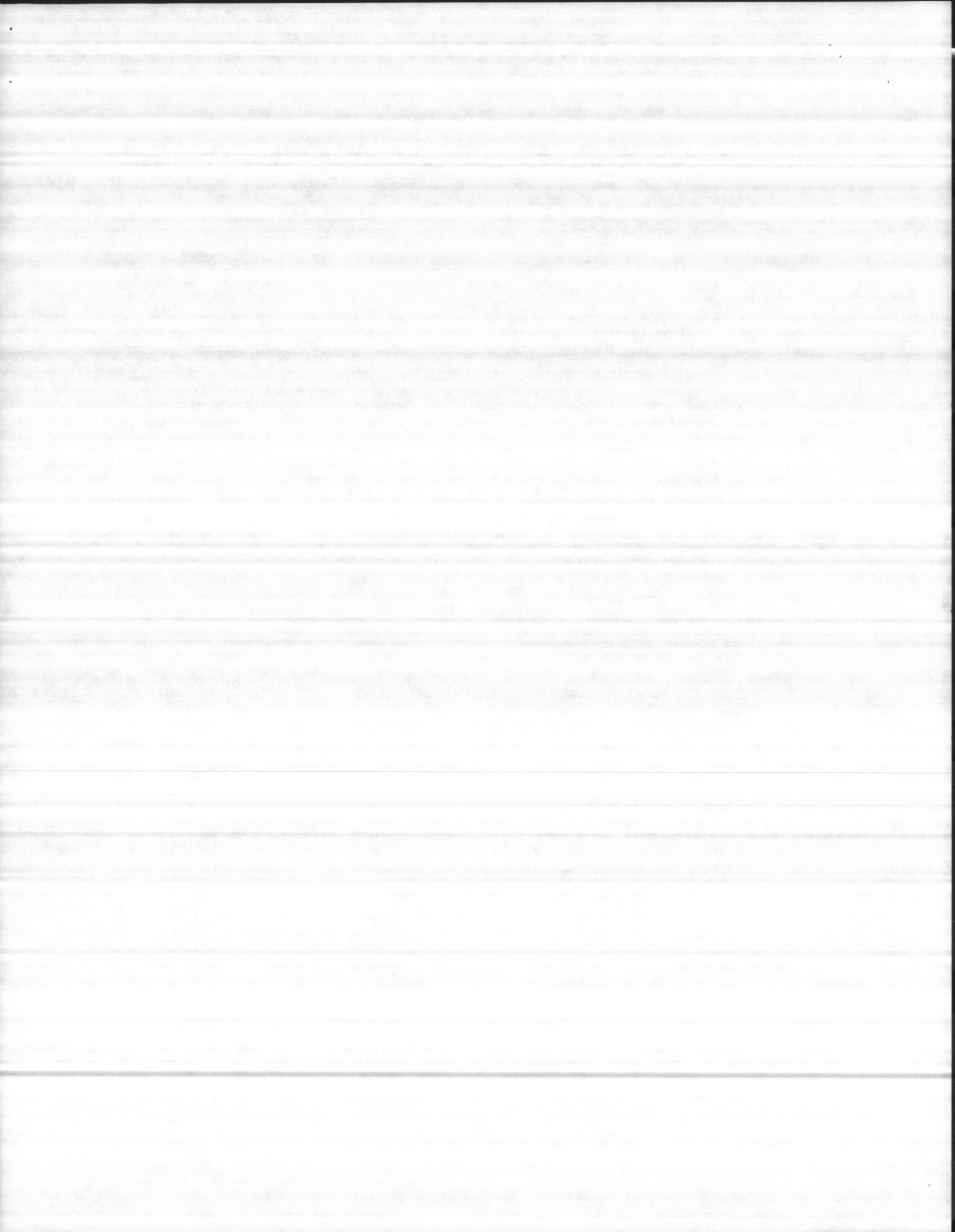


TABLE 3

NOTE: Drives that are rated at 1760 RPM vertical speed ARE NOT LIMITED to 1760 RPM. See Table 1.

MODEL	Vertical Shaft RPM	H.P. Rating	DOWNTHRUST CAPACITY IN POUNDS													
			HOLLOW SHAFT						SOLID SHAFT						COMB.	
			Type SL		Type S		Type SH		Type SSL		Type SS		Type SSH		Type C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
20	1160	15	0	978	797	2358	797	3680	0	978	0	2358			0	2358
	1460	18	0	901	760	2173	760	3392	0	901	0	2173			0	2173
	1760	20	0	850	700	2050	700	3200	0	850	0	2050			0	2050
	3460	30	0	680	534	1640	534	2560	0	680	0	1640			0	1640
40	1160	30	0	1495	1138	3565	1138	5520	0	1495	0	3565			0	3565
	1460	35	0	1378	1055	3286	1055	5088	0	1378	0	3286			0	3286
	1760	40	0	1300	1000	3100	1000	4800	0	1300	0	3100			0	3100
60	960	39	0	2074	1490	5002	1490	7320	0	2074	0	5002			0	5002
	1160	45	0	1955	1422	4715	1422	6900	0	1955	0	4715			0	4715
	1460	53	0	1802	1331	4346	1331	6360	0	1802	0	4346			0	4346
	1760	60	0	1700	1250	4100	1250	6000	0	1700	0	4100			0	4100
80	960	52	0	3904	2085	6954	2085	11224	0	3904	0	6954			0	6954
	1160	60	0	3680	1991	6555	1991	10580	0	3680	0	6555			0	6555
	1460	70	0	3392	1846	6042	1846	9752	0	3392	0	6042			0	6042
	1760	80	0	3200	1750	5700	1750	9200	0	3200	0	5700			0	5700
100	960	66	0	3904	2101	7198	2101	11224	0	3904	0	7198			0	7198
	1160	75	0	3680	1991	6785	1991	10580	0	3680	0	6785			0	6785
	1460	88	0	3392	1856	6254	1856	9752	0	3392	0	6254			0	6254
	1760	100	0	3200	1750	5900	1750	9200	0	3200	0	5900			0	5900
125	720	68	0	5535	3135	7965	3135	12420	0	5535	0	7965			0	7965
	960	83	0	5002	2722	7198	2722	11224	0	5002	0	7198			0	7198
	1160	94	0	4715	2560	6781	2560	10580	0	4715	0	6781			0	6781
	1460	110	0	4346	2387	6254	2387	9752	0	4346	0	6254			0	6254
150	720	80	0	6750	3520	9180	3520	14243	0	6750	0	9180	0	14243	0	9180
	960	98	0	6100	3234	8296	3234	12871	0	6100	0	8296	0	12871	0	8296
	1160	112	0	5750	3059	7820	3059	12133	0	5750	0	7820	0	12133	0	7820
	1460	132	0	5300	2864	7208	2864	11183	0	5300	0	7208	0	11183	0	7208
200	720	107	0	6750	3531	9180	3531	14243	0	6750	0	9180	0	14243	0	9180
	960	131	0	6100	3242	8296	3242	12871	0	6100	0	8296	0	12871	0	8296
	1160	150	0	5750	3072	7820	3072	12133	0	5750	0	7820	0	12133	0	7820
	1460	176	0	5300	2864	7208	2864	11183	0	5300	0	7208	0	11183	0	7208
275	720	147	0	8100	3920	17213	3920	25650	0	8100	0	13973	3920	25650		
	960	180	0	7320	3600	15555	3600	23180	0	7320	0	12627	3600	23180		
	1160	206	0	6900	3410	14663	3410	21850	0	6900	0	11903	3410	21850		
	1460	241	0	6360	3169	13515	3169	20140	0	6360	0	10971	3169	20140		
375	720	217	0	8100	3920	17213	3920	25650	0	8100	0	13973	3920	25650		
	960	246	0	7320	3600	15555	3600	23180	0	7320	0	12627	3600	23180		
	1160	281	0	6900	3410	14663	3410	21850	0	6900	0	11903	3410	21850		
	1460	329	0	6360	3169	13515	3169	20140	0	6360	0	10971	3169	20140		
450	580	172	0	8700	4871	27550	4871	36250	0	8700	0	15008	4871	27550		
	720	201	0	8100	4586	25650	4586	33750	0	8100	0	13973	4586	25650		
	960	246	0	7320	4209	23180	4209	30500	0	7320	0	12627	4209	23180		
	1160	281	0	6900	3979	21850	3979	28750	0	6900	0	11903	3979	21850		
600	580	207	0	8700	5583	27550	5583	36250	0	8700	0	15008	5583	27550		
	720	241	0	8100	5236	25650	5236	33750	0	8100	0	13973	5236	25650		
	960	295	0	7320	4807	23180	4807	30500	0	7320	0	12627	4807	23180		
	1160	337	0	6900	4545	21850	4545	28750	0	6900	0	11903	4545	21850		
750	580	344	0	11310	6959	36250			0	11310	0	15008	6259	36250		
	720	401	0	10530	6535	33750			0	10530	0	13973	5885	33750		
	870	458	0	9828	6177	31500			0	9828	0	13041	5568	31500		
	960	491	0	9516	6001	30500			0	9516	0	12627	5404	30500		
750	1160	561	0	8970	5674	28750			0	8920	0	11903	5109	28750		
	1460	659	0	8268	5296	26500			0	8268	0	10971	4765	26500		
	1760	750	0	7800	5000	25000			0	7800	0	10350	4500	25000		

Please see pages 13 and 14 for all information on Model 1200 Drives.

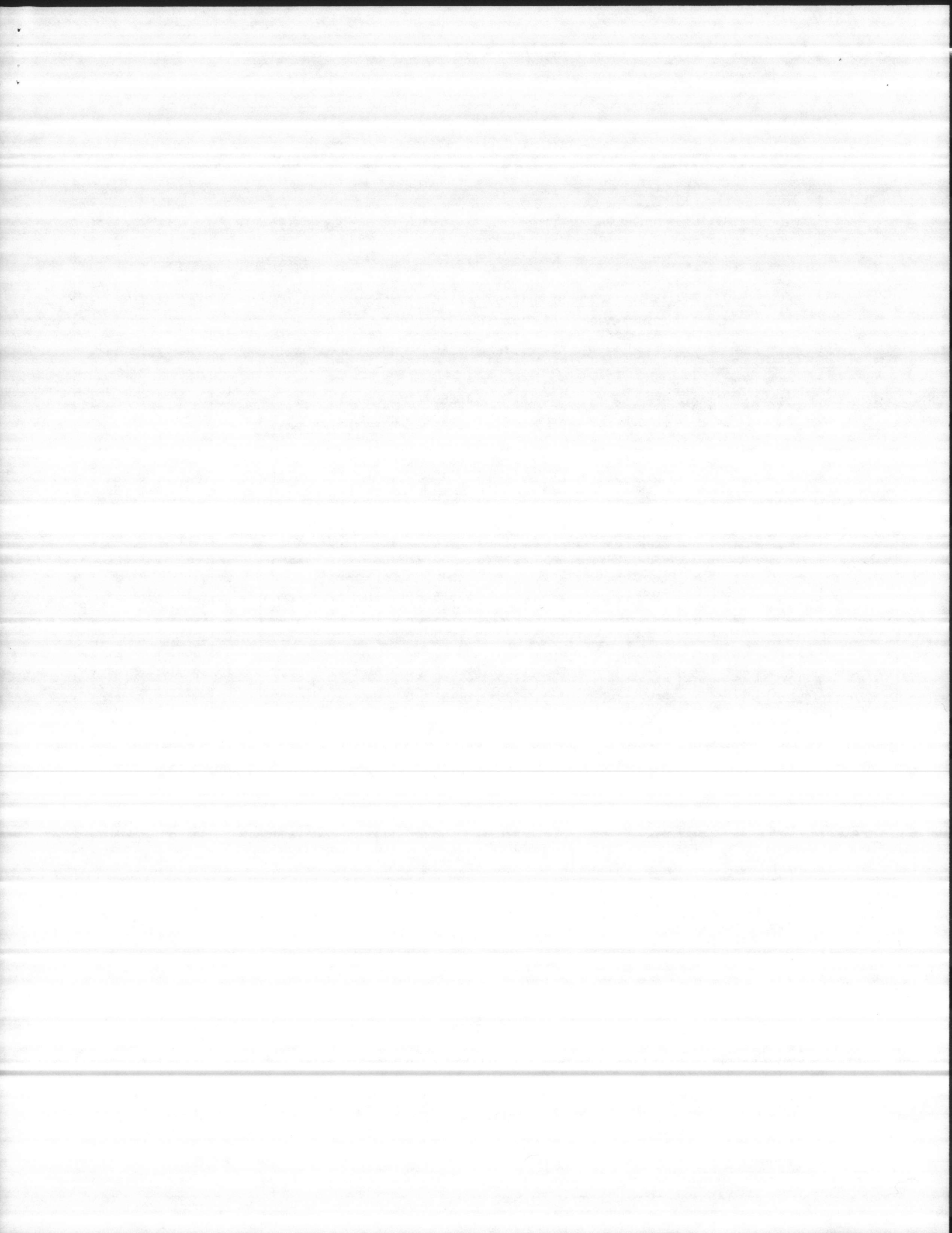


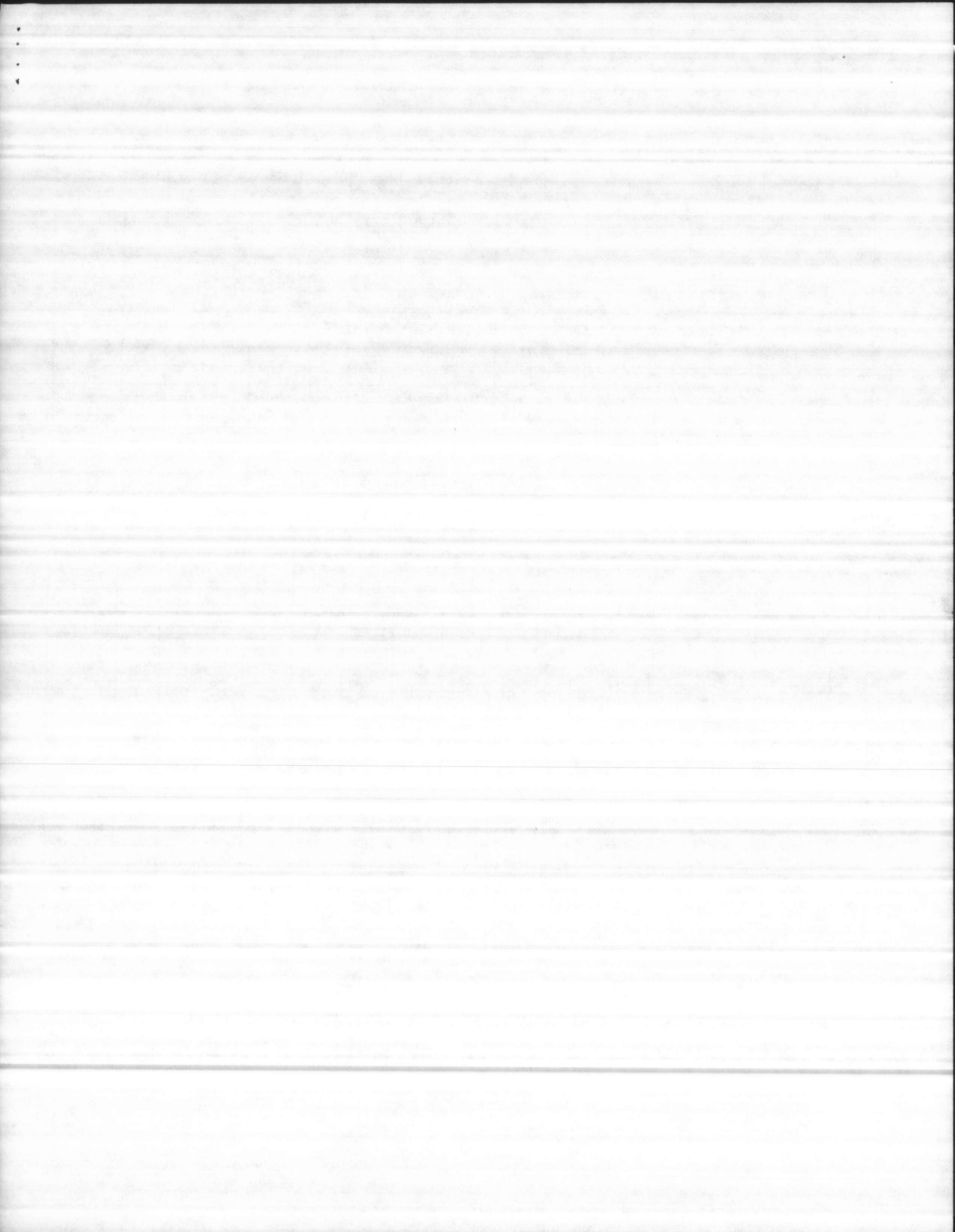
TABLE 4

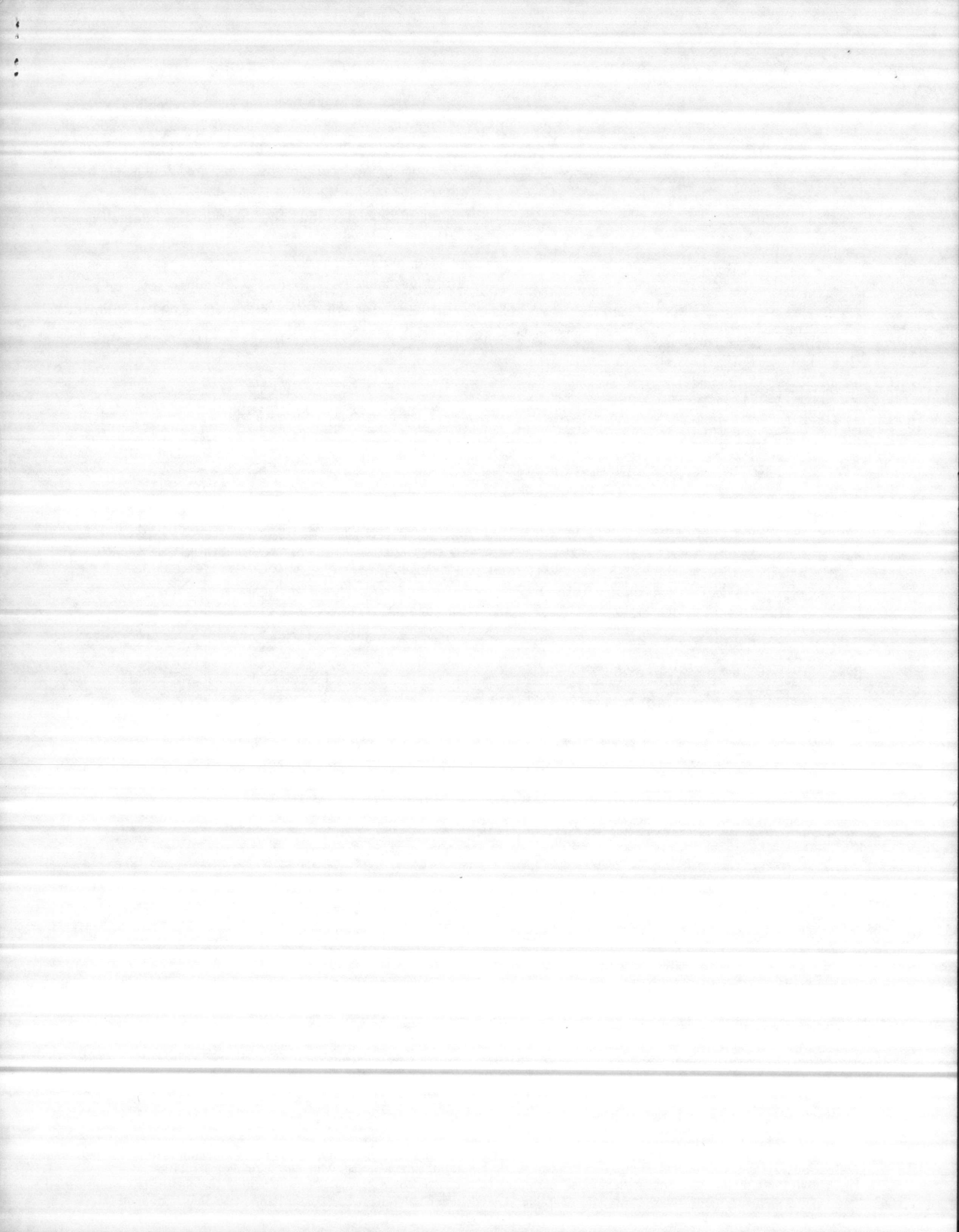
NOTE: Drives that are rated at 1760 RPM vertical speed ARE NOT LIMITED to 1760 RPM. See Table 1.

MODEL	VERTICAL SHAFT RPM	ENGINE RPM											
		1:1	10:11	5:6	4:5	3:4	2:3	5:8	4:7	1:2	4:9	2:5	1:3*
20	1160	1160		967		870	773			580			387
	1460	1460		1217		1095	973			730			487
	1760	1760		1467		1320	1173			880			587
	3460	3460		2883		2595	2307			1730			1153
40	1160	1160		967		870	773		667	580			387
	1460	1460		1217		1095	973		840	730			487
	1760	1760		1467		1320	1173		1012	880			587
60	960	960	864	800	768	720	640	597	545	480		398	320
	1160	1160	1044	967	928	870	773	721	659	580		481	387
	1460	1460	1314	1217	1168	1095	973	908	830	730		605	487
	1760	1760	1584	1467	1408	1320	1173	1094	1000	880		730	587
80	960	960	864	800	768	720	640	597	545	480		398	320
	1160	1160	1044	967	928	870	773	721	659	580		481	387
	1460	1460	1314	1217	1168	1095	973	908	830	730		605	487
	1760	1760	1584	1467	1408	1320	1173	1094	1000	880		730	587
100	960	960	864	800	768	720	640	597	545	480		398	
	1160	1160	1044	967	928	870	773	721	659	580		481	
	1460	1460	1314	1217	1168	1095	973	908	830	730		605	
	1760	1760	1584	1467	1408	1320	1173	1094	1000	880		730	
125	720	720	650	600	576	540	480						
	960	960	867	800	768	720	640						
	1160	1160	1048	967	928	870	773						
	1460	1460	1319	1217	1168	1095	973						
1760	1760	1590	1467	1408	1320	1173							
150	720	720	650	597	576	540	480		409	360	320	293	240
	960	960	867	796	768	720	640		545	480	426	391	320
	1160	1160	1048	960	928	870	773		659	580	516	473	387
	1460	1460	1319	1210	1168	1095	973		830	730	649	595	487
1760	1760	1590	1458	1408	1320	1173		1000	880	782	717	587	
200	720	720	650	597	576	540	480		409	360	320	293	
	960	960	867	796	768	720	640		545	480	426	391	
	1160	1160	1048	960	928	870	773		659	580	516	473	
	1460	1460	1319	1210	1168	1095	973		830	730	649	595	
1760	1760	1590	1458	1408	1320	1173		1000	880	782	717		
275	720	720	656	623	576	540	480	450	409	352	318	291	
	960	960	875	830	768	720	640	600	546	470	425	388	CONSULT FACTORY
	1160	1160	1058	1003	928	870	773	725	660	568	513	468	
	1460	1460	1331	1263	1168	1095	973	913	830	715	646	590	
1760	1760	1605	1522	1408	1320	1173	1100	1000	862	778	711		
375	580	580	529	502	464	439	392	363	330	284			
	720	720	656	623	576	545	486	450	409	352			
	960	960	875	830	768	726	648	600	546	470			
	1160	1160	1058	1003	928	875	783	725	660	568			
1460	1460	1331	1263	1168	1105	985	913	830	715				
1760	1760	1605	1522	1408	1332	1188	1100	1000	862				
450	580	580	529	502	461	439	392	363	330	284			
	720	720	656	623	573	545	486	450	409	352			
	960	960	875	830	764	726	648	600	546	470			
	1160	1160	1058	1003	923	878	783	725	660	568			
1460	1460	1331	1263	1161	1105	985	913	830	715				
1760	1760	1605	1522	1400	1392	1188	1100	1000	862				
600	580	580			461	432	383	360	327	285			
	720	720			573	536	475	447	406	353			
	870	870			692	648	574	539	490	427			
	960	960			764	715	634	595	541	471			
1160	1160			923	864	766	719	654	569				
1460	1460			1161	1087	964	905	823	717				
1760	1760			1400	1311	1162	1091	992	864				
750	580	565		486		429	383		327	276			
	720	700		603		533	475		406	342			
	870	846		729		643	574		490	414			
	960	933		804		710	634		541	456			
1160	1128		972		858	766		654	551				
1460	1421		1223		1080	963		823	694				
1760	1712		1475		1302	1162		992	837				

*Model 20 1:3 ratio not available with Figure 2 or Figure 3 rotation.

Please see pages 13 and 14 for all information on Model 1200 Drives.





amarillo

MARMON

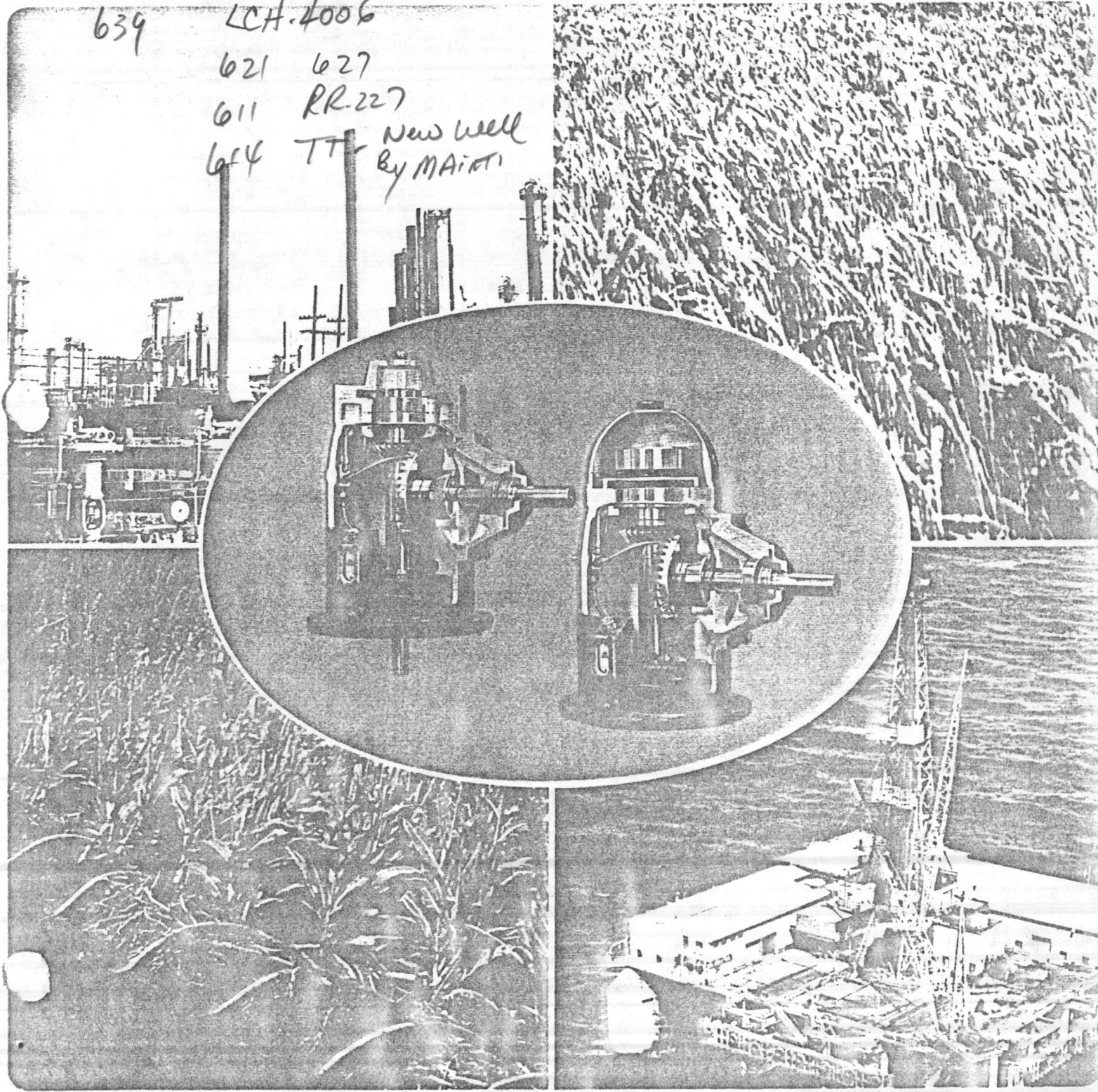
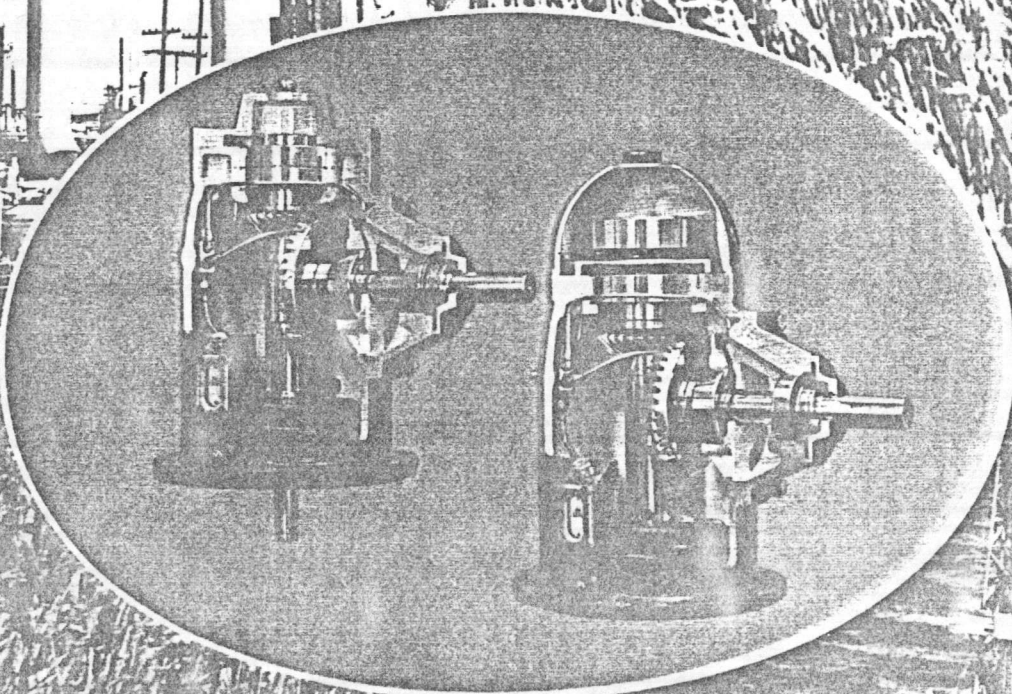
RIGHT
ANGLE
GEAR
DRIVES



CATALOG NUMBER 30 MARCH 1981

New wells Replac those - 10-10-84

639 LCH-4006
621 627
611 RR-227
614 TT - New well
By MAINT



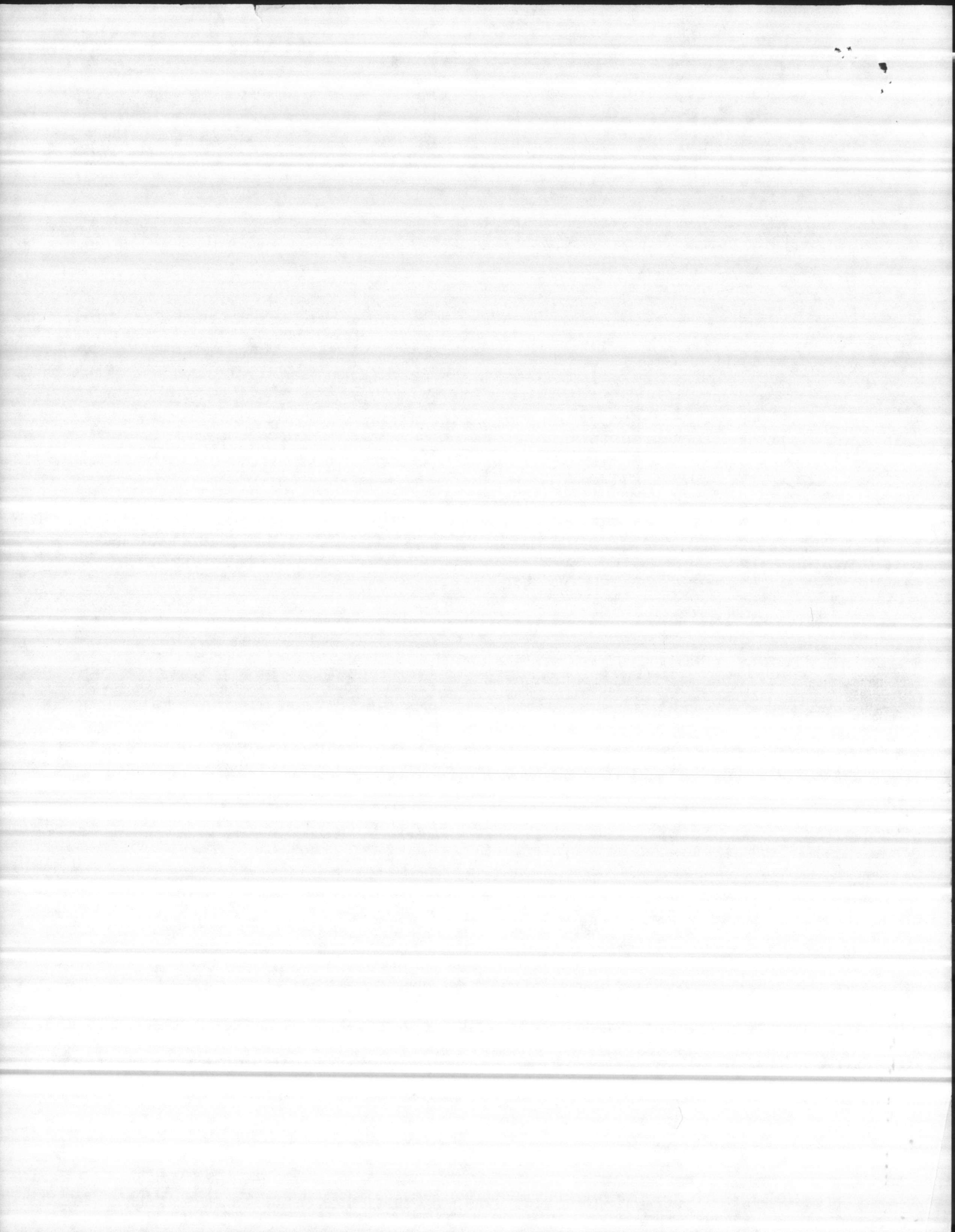
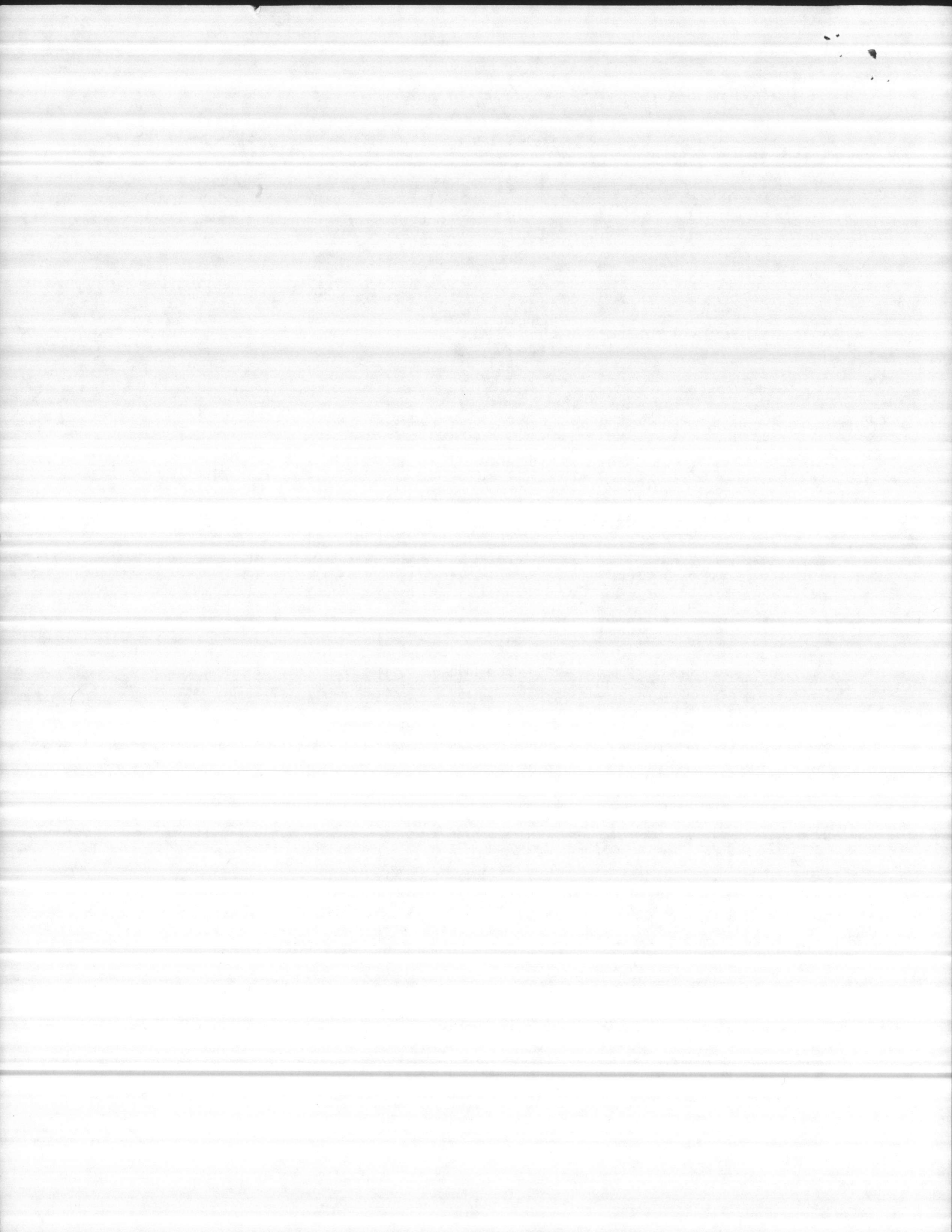


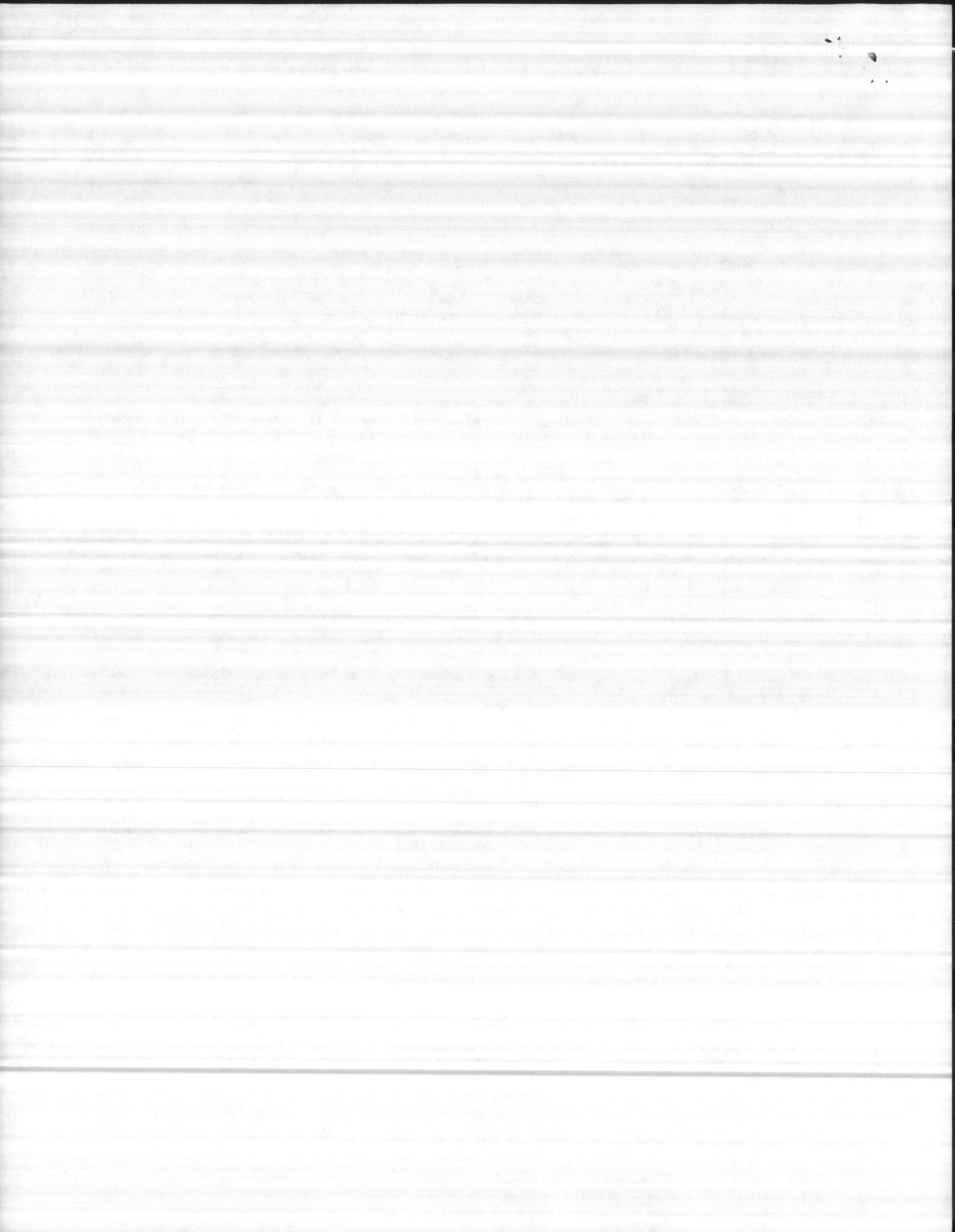
TABLE 3

NOTE: Drives that are rated at 1760 RPM vertical speed ARE NOT LIMITED to 1760 RPM. See Table 1.

MODEL	Vertical Shaft RPM	H.P. Rating	DOWNTHRUST CAPACITY IN POUNDS													
			HOLLOW SHAFT						SOLID SHAFT						COMB.	
			Type SL		Type S		Type SH		Type SSL		Type SS		Type SSH		Type C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
20	1160	15	0	978	797	2358	797	3680	0	978	0	2358			0	2358
	1460	18	0	901	760	2173	760	3392	0	901	0	2173			0	2173
	1760	20	0	850	700	2050	700	3200	0	850	0	2050			0	2050
	3460	30	0	680	534	1640	534	2560	0	680	0	1640			0	1640
40	1160	30	0	1495	1138	3565	1138	5520	0	1495	0	3565			0	3565
	1460	35	0	1378	1055	3286	1055	5088	0	1378	0	3286			0	3286
	1760	40	0	1300	1000	3100	1000	4800	0	1300	0	3100			0	3100
60	960	39	0	2074	1490	5002	1490	7320	0	2074	0	5002			0	5002
	1160	45	0	1955	1422	4715	1422	6900	0	1955	0	4715			0	4715
	1460	53	0	1802	1331	4346	1331	6360	0	1802	0	4346			0	4346
	1760	60	0	1700	1250	4100	1250	6000	0	1700	0	4100			0	4100
80	960	52	0	3904	2085	6954	2085	11224	0	3904	0	6954			0	6954
	1160	60	0	3680	1991	6555	1991	10580	0	3680	0	6555			0	6555
	1460	70	0	3392	1846	6042	1846	9752	0	3392	0	6042			0	6042
	1760	80	0	3200	1750	5700	1750	9200	0	3200	0	5700			0	5700
100	960	66	0	3904	2101	7198	2101	11224	0	3904	0	7198			0	7198
	1160	75	0	3680	1991	6785	1991	10580	0	3680	0	6785			0	6785
	1460	88	0	3392	1856	6254	1856	9752	0	3392	0	6254			0	6254
	1760	100	0	3200	1750	5900	1750	9200	0	3200	0	5900			0	5900
125	720	68	0	5535	3135	7965	3135	12420	0	5535	0	7965			0	7965
	960	83	0	5002	2722	7198	2722	11224	0	5002	0	7198			0	7198
	1160	94	0	4715	2560	6781	2560	10580	0	4715	0	6781			0	6781
	1460	110	0	4346	2387	6254	2387	9752	0	4346	0	6254			0	6254
150	720	80	0	6750	3520	9180	3520	14243	0	6750	0	9180	0	14243	0	9180
	960	98	0	6100	3234	8296	3234	12871	0	6100	0	8296	0	12871	0	8296
	1160	112	0	5750	3059	7820	3059	12133	0	5750	0	7820	0	12133	0	7820
	1460	132	0	5300	2864	7208	2864	11183	0	5300	0	7208	0	11183	0	7208
200	720	107	0	6750	3531	9180	3531	14243	0	6750	0	9180	0	14243	0	9180
	960	131	0	6100	3242	8296	3242	12871	0	6100	0	8296	0	12871	0	8296
	1160	150	0	5750	3072	7820	3072	12133	0	5750	0	7820	0	12133	0	7820
	1460	176	0	5300	2864	7208	2864	11183	0	5300	0	7208	0	11183	0	7208
275	720	147	0	8100	3920	13973	3920	25650	0	8100	0	13973	3920	25650		
	960	180	0	7320	3600	12627	3600	23180	0	7320	0	12627	3600	23180		
	1160	206	0	6900	3410	11903	3410	21850	0	6900	0	11903	3410	21850		
	1460	241	0	6360	3169	10971	3169	20140	0	6360	0	10971	3169	20140		
375	720	201	0	8100	4586	25650	4586	33750	0	8100	0	13973	4586	25650		
	960	246	0	7320	4209	23180	4209	30500	0	7320	0	12627	4209	23180		
	1160	281	0	6900	3979	21850	3979	28750	0	6900	0	11903	3979	21850		
	1460	329	0	6360	3702	20140	3702	26500	0	6360	0	10971	3702	20140		
450	720	207	0	8700	5583	27550	5583	36250	0	8700	0	15008	5583	27550		
	960	241	0	8100	5236	25650	5236	33750	0	8100	0	13973	5236	25650		
	1160	295	0	7320	4807	23180	4807	30500	0	7320	0	12627	4807	23180		
	1460	337	0	6900	4545	21850	4545	28750	0	6900	0	11903	4545	21850		
600	580	275	0	11600	6259	36250	6259	44645	0	11600	0	15008	6259	36250		
	720	321	0	10800	5885	33750	5885	41841	0	10800	0	13973	5885	33750		
	870	367	0	10080	5568	31500	5568	39532	0	10080	0	13041	5568	31500		
	960	393	0	9760	5404	30500	5404	38382	0	9760	0	12627	5404	30500		
750	580	344	0	11310	6959	36250	6959	44645	0	11310	0	15008	6259	36250		
	720	401	0	10530	6535	33750	6535	41841	0	10530	0	13973	5885	33750		
	870	458	0	9828	6177	31500	6177	39532	0	9828	0	13041	5568	31500		
	960	491	0	9516	6001	30500	6001	38382	0	9516	0	12627	5404	30500		
1000G	580	460	0	11310	9306	36250	9306	46738	0	11310						
	720	535	0	10530	8719	33750	8719	43802	0	10530						
	870	611	0	9828	8241	31500	8241	41385	0	9828	CONSULT FACTORY	CONSULT FACTORY			CONSULT FACTORY	
	960	654	0	9516	7994	30500	7994	40181	0	9516	CONSULT FACTORY	CONSULT FACTORY			CONSULT FACTORY	
1000G	1160	747	0	8970	7556	28750	7556	37963	0	8920						
	1460	877	0	8268	7048	26500	7048	35432	0	8268						
	1760	1000	0	7800	6667	25000	6667	33500	0	7800						

Please see pages 12, 13 and 14 for all information on Models 1000A, 1200, 1500 and 1800.





CUSTOMER NAME East Coast Const Co.
 CUST. ORD. NO. 1217
 U.S. ORD. NO.
 MARK: Camp Lejeune
 QTY. 1 HP 30 FRAME 286 TP PHASE 3
 HERTZ 60 R.P.M. 1800 VOLTS 208



Vertical Motors

Section 505
 Page 1

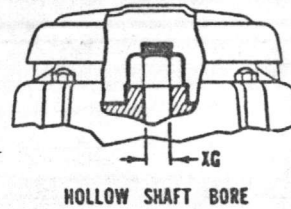
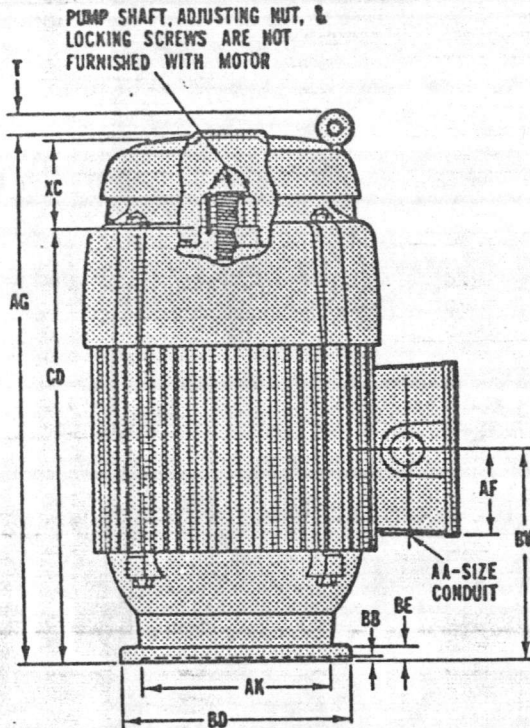
WPI-TYPE AU
 FRAMES 182 THRU 256TPA

HIGH THRUST
 VERTICAL HOLLOSHAFT
 NEMA P BASE

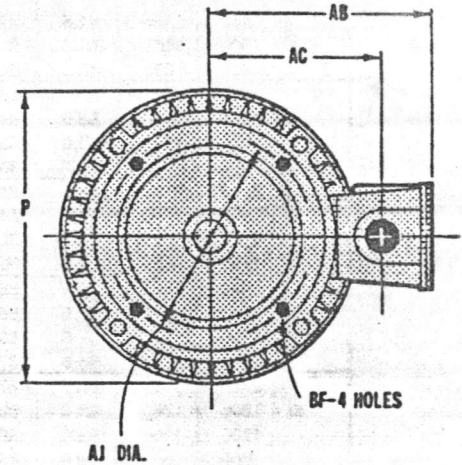
DIMENSIONS

FEATURES: 30 HP, 1800 rpm, frame 286 TP, 1.15 S.F. continuous duty

Building LCH4006



Conduit opening may be located in steps of 90°. Standard as shown with conduit down.



ALL DIMENSIONS ARE IN INCHES

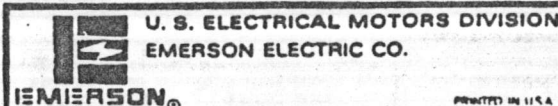
FRAME	P*	T	AA	AB	AC	AF	AG	AJ DIA.	AK -.003	BB	BD	BE	BF TAP SIZE	BV	CD	XC	XG	UNIMOUNT BRKT. P/N
182TP 184TP	12-7/8	1-1/2	1	6-5/16	5-3/8	2-5/8	21-1/4	9-1/8	8-1/4	3/16	10	3/4	7/16	8	17-9/16	3-11/32	1-1/16	682186
213TP 215TP	12-7/8	1-1/2	1	7-9/16	6-7/16	3-5/16	21-1/4	9-1/8	8-1/4	3/16	10	3/4	7/16	8	17-9/16	3-11/32	1-1/16	682186
254TP 256TP	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	9-1/8	8-1/4	1/4	10	15/16	7/16	11-7/16	23-7/16	3-3/8	1-1/4	347107
254TPH 256TPH	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	9-1/8	8-1/4	1/4	12	15/16	7/16	11-7/16	23-7/16	3-3/8	1-1/4	347109
254TPA 256TPA	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	14-3/4	13-1/2	1/4	16-1/2	15/16	11/16	11-7/16	23-7/16	3-3/8	1-1/4	347111
284TP 286TP	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	9-1/8	8-1/4	1/4	10	15/16	7/16	12-1/4	24-13/16	3-3/8	1-1/4	347107
284TPA 286TPA	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	9-1/8	8-1/4	1/4	12	15/16	7/16	12-1/4	24-13/16	3-3/8	1-1/4	347109
284TPH 286TPH	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	14-3/4	13-1/2	1/4	16-1/2	15/16	11/16	12-1/4	24-13/16	3-3/8	1-1/4	347111

All rough casting dimensions may vary by 1/4" due to casting variations.

* Largest Motor Diameter

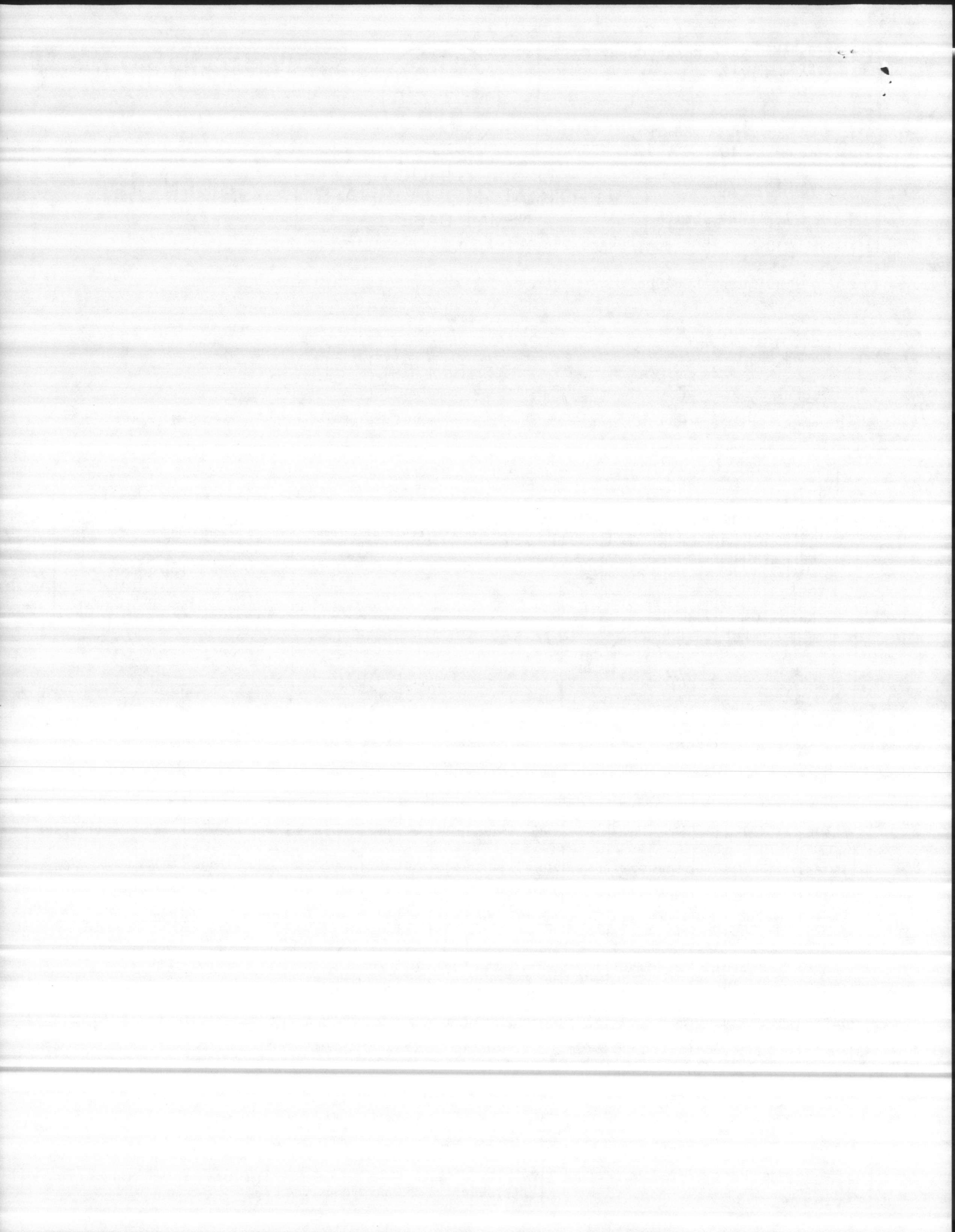
TOLERANCES: "AK" Dimension: +.003, Face Runout: .004 F.I.R.
 Permissible Eccentricity of Mounting Rabbet: .004 F.I.R.

All tapped holes are Unified National Course, right hand thread.



Effective: MAY 18, 1980
 Supersedes: FEBRUARY 3, 1980

If properly endorsed this print is correct
 for frame & assembly positions indicated.
 By _____ Date _____





Vertical Motors

Section 504
Page 1

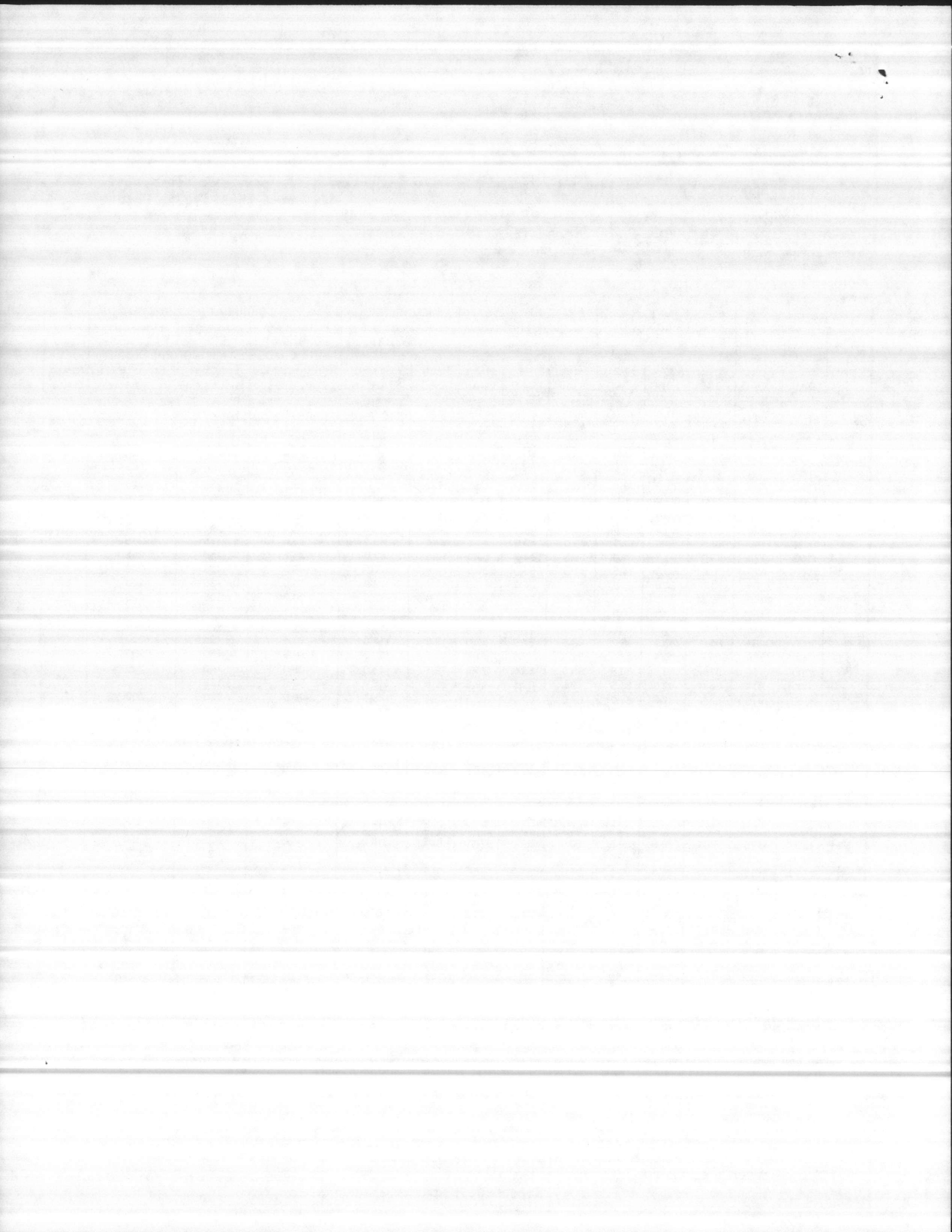
3 PHASE 60 CYCLES
230,460,575 VOLTS
40°C. AMBIENT-C.RISE WP-1

HOLLOSHAFT & SOLIDSHAFT
MOTORS
OPERATING CHARACTERISTICS

**ENGINEERING
DATA**

HP	RPM		% EFFICIENCY			% POWER FACTOR			CURRENT IN AMPHERES 460 VOLTS		TORQUE AT FULL VOLTAGE			NEMA CODE
	NO LOAD	FULL LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	LOCKED (STARTING)	FULL LOAD TORQUE AT FULL LOAD SPEED (LB.FT.)	LOCKED (STARTING) PERCENT OF FULL LOAD	PULL OUT (BREAKDOWN) PERCENT OF FULL LOAD	
2	900	860	75.0	74.5	70.0	68.0	60.0	47.5	3.9	18.0	12.2	130	210	J
	1800	1720	80.0	79.5	75.5	81.0	72.5	59.5	4.4	32.0	9.2	215	250	K
3	1200	1155	78.5	78.0	75.0	69.0	61.0	49.0	5.4	23.0	13.6	155	230	G
	900	860	78.5	79.0	75.5	67.5	59.0	46.0	5.8	30.5	18.3	130	205	K
	3600	3480	81.0	82.0	80.5	86.0	80.5	69.5	6.9	45.0	7.5	150	215	H
5	1800	1725	81.5	82.0	79.5	84.0	76.5	63.5	7.0	47.0	15.2	185	225	J
	1200	1160	81.0	81.0	78.0	71.0	62.5	50.0	8.5	40.0	22.6	150	215	G
	900	875	80.5	80.0	77.0	72.0	64.0	51.0	8.2	44.0	30.0	130	205	H
7-1/2	3600	3460	84.0	85.0	84.0	88.0	84.0	75.5	9.8	63.0	11.4	140	200	H
	1800	1740	83.5	84.0	82.5	84.0	80.0	71.5	10.4	63.5	22.6	175	215	H
	1200	1170	83.0	83.5	81.0	80.5	74.0	61.5	10.5	63.0	33.7	150	205	H
	900	875	80.5	80.5	77.5	71.5	63.0	50.5	12.5	63.0	45.0	125	200	K
10	3600	3500	83.5	84.0	83.0	87.0	84.0	76.5	13.4	79.0	15.0	135	200	H
	1800	1740	86.5	87.0	85.5	81.0	75.0	64.0	13.3	82.0	30.2	165	200	H
	1200	1165	82.5	82.5	80.0	78.5	70.0	57.0	14.0	80.0	45.1	150	200	H
	900	875	86.0	86.5	84.5	72.0	65.0	53.0	15.5	81.0	60.0	125	200	H
15	3600	3485	85.0	86.5	86.0	88.5	87.0	82.0	19.5	112.0	22.8	130	200	G
	1800	1765	85.5	86.5	85.0	81.0	73.5	61.5	20.5	112.0	44.5	160	200	G
	1200	1160	87.5	89.0	89.0	85.0	82.0	74.5	19.4	115.0	68.0	140	200	G
	900	870	86.0	87.5	86.5	75.5	69.5	58.5	22.5	116.0	90.6	125	200	G
20	3600	3515	85.5	87.0	87.0	89.0	87.5	82.5	25.4	145.0	29.9	130	200	G
	1800	1765	88.0	89.0	89.0	85.0	82.5	75.0	26.0	143.0	59.5	150	200	G
	1200	1160	88.0	89.5	89.0	85.0	81.5	74.0	25.8	145.0	90.5	135	200	G
	900	880	85.0	86.5	86.0	74.5	69.0	57.0	30.5	140.0	120.0	125	200	G
25	3600	3510	89.0	90.0	89.0	88.5	87.0	81.0	30.4	172.0	37.4	130	200	F
	1800	1755	88.5	90.0	89.5	83.0	78.5	68.5	32.5	180.0	74.8	150	200	G
	1200	1180	85.5	87.0	86.5	84.0	79.0	68.0	33.5	193.0	111.5	135	200	G
	900	880	86.0	88.0	87.5	77.0	72.0	61.0	36.5	175.0	150.0	125	200	G
30	3600	3510	89.5	90.5	89.5	87.5	85.0	78.0	37.0	218.0	44.9	130	200	G
	1800	1755	89.0	90.0	89.5	80.5	75.0	63.5	40.0	217.0	89.8	150	200	G
	1200	1175	86.5	88.5	89.5	86.0	84.0	78.0	38.5	215.0	134.0	135	200	G
	900	880	88.0	89.5	89.5	75.0	70.0	59.5	43.5	205.0	179.0	125	200	G
40	3600	3515	90.0	91.0	90.0	86.5	83.0	75.0	48.5	310.0	59.8	125	200	G
	1800	1770	88.0	89.5	89.0	86.0	82.0	73.0	51.0	292.5	119.0	140	200	G
	1200	1175	87.5	89.5	90.0	84.5	81.0	72.0	52.0	292.0	179.0	135	200	G
	900	875	88.0	90.0	90.0	76.0	71.5	61.0	57.5	280.0	240.0	125	200	F
50	3600	3540	88.0	89.5	89.0	87.0	84.5	78.0	63.0	350.0	74.2	120	200	G
	1800	1765	89.0	90.5	90.5	84.5	81.0	72.0	64.0	339.5	150.0	140	200	G
	1200	1170	88.0	90.5	91.0	85.0	83.0	76.5	64.0	370.0	224.5	135	200	G
	900	875	88.5	90.0	90.0	80.0	76.0	67.0	68.0	325.0	300.0	125	200	G
60	3600	3540	89.5	91.0	91.0	89.0	89.0	86.0	72.5	410.0	89.0	120	200	G
	1800	1770	90.0	91.0	91.0	86.0	83.0	75.0	75.0	454.5	178.0	140	200	G
	1200	1175	88.5	90.0	89.5	85.5	82.0	72.5	76.0	460.0	268.0	135	200	G
	900	875	89.0	90.5	90.5	80.5	77.0	68.0	80.5	410.0	360.0	125	200	G

See Page 2 for higher horsepowers and notes.



CUSTOMER NAME East Coast Const. Co.
 CUST. ORD. NO. 1217
 U.S. ORD. NO.
 MARK: Camp Lejeune
 QTY. 2 HP 20 FRAME 256 TP PHASE 3
 HERTZ 60 R.P.M. 1800 VOLTS 208



Vertical Motors

Section 505
 Page 1

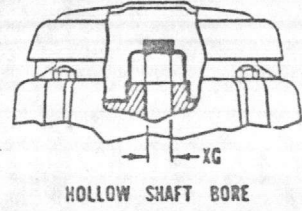
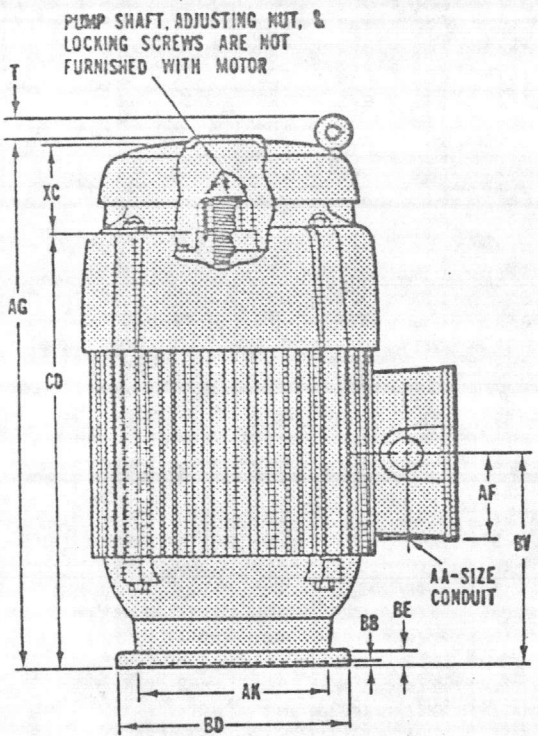
WPI-TYPE AU
 FRAMES 182 THRU 256TPA

HIGH THRUST
 VERTICAL HOLLOSHAFT
 NEMA P BASE

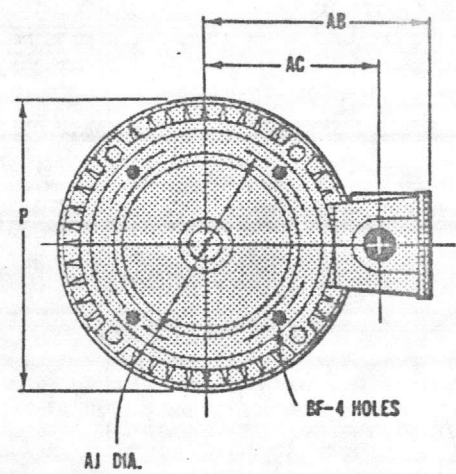
DIMENSIONS

FEATURES: 20 HP, 1800 rpm, frame 256 TP, 1.15 S.F. continuous duty

Building 611 and 614



Conduit opening may be located in steps of 90°. Standard as shown with conduit down.



ALL DIMENSIONS ARE IN INCHES

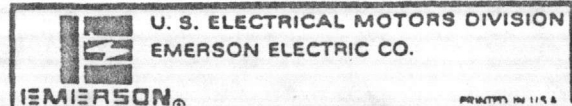
FRAME	P*	T	AA	AB	AC	AF	AG	AJ DIA.	AK -.003	BB	BD	BE	BF TAP SIZE	BV	CD	XC	XG	UNIMOUNT BRKT. P/N
182TP 184TP	12-7/8	1-1/2	1	6-5/16	5-3/8	2-5/8	21-1/4	9-1/8	8-1/4	3/16	10	3/4	7/16	8	17-9/16	3-11/32	1-1/16	682186
213TP 215TP	12-7/8	1-1/2	1	7-9/16	6-7/16	3-5/16	21-1/4	9-1/8	8-1/4	3/16	10	3/4	7/16	8	17-9/16	3-11/32	1-1/16	682186
254TP 256TP	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	9-1/8	8-1/4	1/4	10	15/16	7/16	11-7/16	23-7/16	3-3/8	1-1/4	347107
254TPH 256TPH	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	9-1/8	8-1/4	1/4	12	15/16	7/16	11-7/16	23-7/16	3-3/8	1-1/4	347109
254TPA 256TPA	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	14-3/4	13-1/2	1/4	16-1/2	15/16	11/16	11-7/16	23-7/16	3-3/8	1-1/4	347111
284TP 286TP	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	9-1/8	8-1/4	1/4	10	15/16	7/16	12-1/4	24-13/16	3-3/8	1-1/4	347107
284TPA 286TPA	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	9-1/8	8-1/4	1/4	12	15/16	7/16	12-1/4	24-13/16	3-3/8	1-1/4	347109
284TPH 286TPH	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	14-3/4	13-1/2	1/4	16-1/2	15/16	11/16	12-1/4	24-13/16	3-3/8	1-1/4	347111

All rough casting dimensions may vary by 1/4" due to casting variations.

* Largest Motor Diameter

TOLERANCES: "AK" Dimension: +.003, Face Runout: .004 F.I.R.
 Permissible Eccentricity of Mounting Rabbet: .004 F.I.R.

All tapped holes are Unified National Course, right hand thread.



Effective: MAY 18, 1980
 Supersedes: FEBRUARY 3, 1980

If properly endorsed this print is correct for frame & assembly positions indicated.
 By _____ Date _____



Vertical Motors

Section 504
Page 1

3 PHASE 60 CYCLES
230,460,575 VOLTS
40°C. AMBIENT-C.RISE WP-1

HOLLOSHAFT & SOLIDSHAFT
MOTORS
OPERATING CHARACTERISTICS

ENGINEERING
DATA

HP	RPM		% EFFICIENCY			% POWER FACTOR			CURRENT IN AMPHERES 460 VOLTS		TORQUE AT FULL VOLTAGE			NEMA CODE
	NO LOAD	FULL LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	LOCKED (STARTING)	FULL LOAD TORQUE AT FULL LOAD SPEED (LB.FT.)	LOCKED (STARTING) PERCENT OF FULL LOAD	PULL OUT (BREAKDOWN) PERCENT OF FULL LOAD	
2	900	860	75.0	74.5	70.0	68.0	60.0	47.5	3.9	18.0	12.2	130	210	J
	1800	1720	80.0	79.5	75.5	81.0	72.5	59.5	4.4	32.0	9.2	215	250	K
3	1200	1155	78.5	78.0	75.0	69.0	61.0	49.0	5.4	23.0	13.6	155	230	G
	900	860	78.5	79.0	75.5	67.5	59.0	46.0	5.8	30.5	18.3	130	205	K
	3600	3480	81.0	82.0	80.5	86.0	80.5	69.5	6.9	45.0	7.5	150	215	H
5	1800	1725	81.5	82.0	79.5	84.0	76.5	63.5	7.0	47.0	15.2	185	225	J
	1200	1160	81.0	81.0	78.0	71.0	62.5	50.0	8.5	40.0	22.6	150	215	G
	900	875	80.5	80.0	77.0	72.0	64.0	51.0	8.2	44.0	30.0	130	205	H
7-1/2	3600	3460	84.0	85.0	84.0	88.0	84.0	75.5	9.8	63.0	11.4	140	200	H
	1800	1740	83.5	84.0	82.5	84.0	80.0	71.5	10.4	63.5	22.6	175	215	H
	1200	1170	83.0	83.5	81.0	80.5	74.0	61.5	10.5	63.0	33.7	150	205	H
	900	875	80.5	80.5	77.5	71.5	63.0	50.5	12.5	63.0	45.0	125	200	K
10	3600	3500	83.5	84.0	83.0	87.0	84.0	76.5	13.4	79.0	15.0	135	200	H
	1800	1740	86.5	87.0	85.5	81.0	75.0	64.0	13.3	82.0	30.2	165	200	H
	1200	1165	82.5	82.5	80.0	78.5	70.0	57.0	14.0	80.0	45.1	150	200	H
	900	875	86.0	86.5	84.5	72.0	65.0	53.0	15.5	81.0	60.0	125	200	H
15	3600	3485	85.0	86.5	86.0	88.5	87.0	82.0	19.5	112.0	22.6	130	200	G
	1800	1765	85.5	86.5	85.0	81.0	73.5	61.5	20.5	112.0	44.5	160	200	G
	1200	1160	87.5	89.0	89.0	85.0	82.0	74.5	19.4	115.0	68.0	140	200	G
	900	870	86.0	87.5	86.5	75.5	69.5	58.5	22.5	116.0	90.6	125	200	G
20	3600	3515	85.5	87.0	87.0	89.0	87.5	82.5	25.4	145.0	29.9	130	200	G
	1800	1765	88.0	89.0	89.0	85.0	82.5	75.0	26.0	143.0	59.5	150	200	G
	1200	1160	88.0	89.5	89.0	85.0	81.5	74.0	25.8	145.0	90.5	135	200	G
	900	880	85.0	86.5	86.0	74.5	69.0	57.0	30.5	140.0	120.0	125	200	G
25	3600	3510	89.0	90.0	89.0	88.5	87.0	81.0	30.4	172.0	37.4	130	200	F
	1800	1755	88.5	90.0	89.5	83.0	78.5	68.5	32.5	180.0	74.8	150	200	G
	1200	1180	85.5	87.0	86.5	84.0	79.0	68.0	33.5	193.0	111.5	135	200	G
	900	880	86.0	88.0	87.5	77.0	72.0	61.0	36.5	175.0	150.0	125	200	G
30	3600	3510	89.5	90.5	89.5	87.5	85.0	78.0	37.0	218.0	44.9	130	200	G
	1800	1755	89.0	90.0	89.5	80.5	75.0	63.5	40.0	217.0	89.8	150	200	G
	1200	1175	86.5	88.5	89.5	86.0	84.0	78.0	38.5	215.0	134.0	135	200	G
	900	880	88.0	89.5	89.5	75.0	70.0	59.5	43.5	205.0	179.0	125	200	G
40	3600	3515	90.0	91.0	90.0	86.5	83.0	75.0	48.5	310.0	59.8	125	200	G
	1800	1770	88.0	89.5	89.0	86.0	82.0	73.0	51.0	292.5	119.0	140	200	G
	1200	1175	87.5	89.5	90.0	84.5	81.0	72.0	52.0	292.0	179.0	135	200	G
	900	875	88.0	90.0	90.0	76.0	71.5	61.0	57.5	280.0	240.0	125	200	F
50	3600	3540	88.0	89.5	89.0	87.0	84.5	78.0	63.0	350.0	74.2	120	200	G
	1800	1765	89.0	90.5	90.5	84.5	81.0	72.0	64.0	339.5	150.0	140	200	G
	1200	1170	88.0	90.5	91.0	85.0	83.0	76.5	64.0	370.0	224.5	135	200	G
	900	875	88.5	90.0	90.0	80.0	76.0	67.0	68.0	325.0	300.0	125	200	G
60	3600	3540	89.5	91.0	91.0	89.0	89.0	86.0	72.5	410.0	89.0	120	200	G
	1800	1770	90.0	91.0	91.0	86.0	83.0	75.0	75.0	454.5	178.0	140	200	G
	1200	1175	88.5	90.0	89.5	85.5	82.0	72.5	76.0	460.0	268.0	135	200	G
	900	875	89.0	90.5	90.5	80.5	77.0	68.0	80.5	410.0	360.0	125	200	G

See Page 2 for higher horsepowers and notes.

CUSTOMER NAME East Coast Const. Co.
 CUST. ORD. NO. 1217
 U.S. ORD. NO.
 MARK: Camp Lefeune
 QTY. 1 HP 25 FRAME 284 TP PHASE 3
 HERTZ 60 R.P.M. 1800 VOLTS 208



Vertical Motors

Section 505
 Page 1

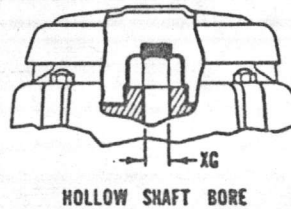
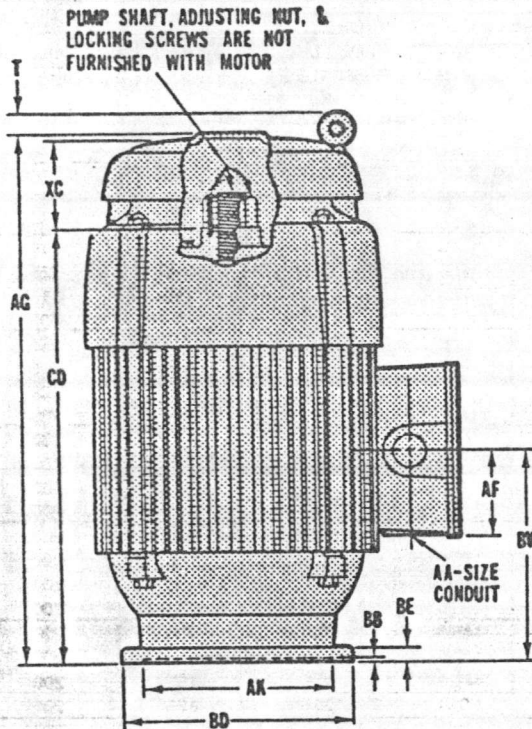
WPI-TYPE AU
 FRAMES 182 THRU 256TPA

HIGH THRUST
 VERTICAL HOLLOSHAFT
 NEMA P BASE

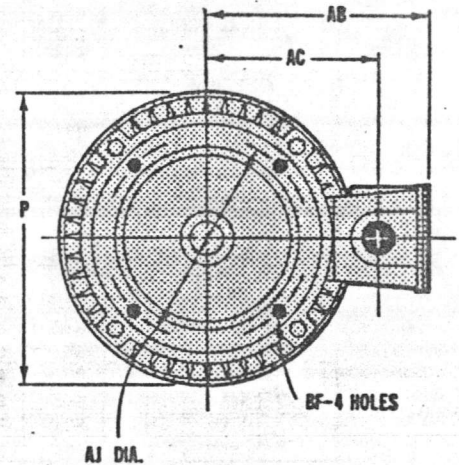
DIMENSIONS

FEATURES: 25 HP, 1800 rpm, frame 284 TP, 1.15 S.F. continuous duty

Building 227



Conduit opening may be located in steps of 90°. Standard as shown with conduit down.



ALL DIMENSIONS ARE IN INCHES

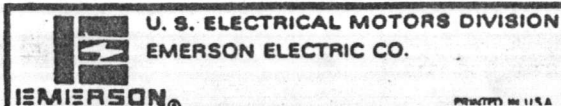
FRAME	P*	T	AA	AB	AC	AF	AG	AJ DIA.	AK -.003	BB	BD	BE	BF TAP SIZE	BV	CD	XC	XG	UNIMOUNT BRKT. P/N
182TP 184TP	12-7/8	1-1/2	1	6-5/16	5-3/8	2-5/8	21-1/4	9-1/8	8-1/4	3/16	10	3/4	7/16	8	17-9/16	3-11/32	1-1/16	682186
213TP 215TP	12-7/8	1-1/2	1	7-9/16	6-7/16	3-5/16	21-1/4	9-1/8	8-1/4	3/16	10	3/4	7/16	8	17-9/16	3-11/32	1-1/16	682188
254TP 256TP	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	9-1/8	8-1/4	1/4	10	15/16	7/16	11-7/16	23-7/16	3-3/8	1-1/4	347107
254TPH 256TPH	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	9-1/8	8-1/4	1/4	12	15/16	7/16	11-7/16	23-7/16	3-3/8	1-1/4	347109
254TPA 256TPA	14	-	1-1/4	8-15/16	7-3/4	3-19/32	26-13/16	14-3/4	13-1/2	1/4	16-1/2	15/16	11/16	11-7/16	23-7/16	3-3/8	1-1/4	347111
284TP 286TP	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	9-1/8	8-1/4	1/4	10	15/16	7/16	12-1/4	24-13/16	3-3/8	1-1/4	347107
284TPA 286TPA	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	9-1/8	8-1/4	1/4	12	15/16	7/16	12-1/4	24-13/16	3-3/8	1-1/4	347109
284TPH 286TPH	14	-	1-1/2	9-3/16	7-5/8	4-7/16	28-3/16	14-3/4	13-1/2	1/4	16-1/2	15/16	11/16	12-1/4	24-13/16	3-3/8	1-1/4	347111

All rough casting dimensions may vary by 1/4" due to casting variations.

TOLERANCES: "AK" Dimension: +.003, Face Runout: .004 F.I.R.
 Permissible Eccentricity of Mounting Rabbet: .004 F.I.R.

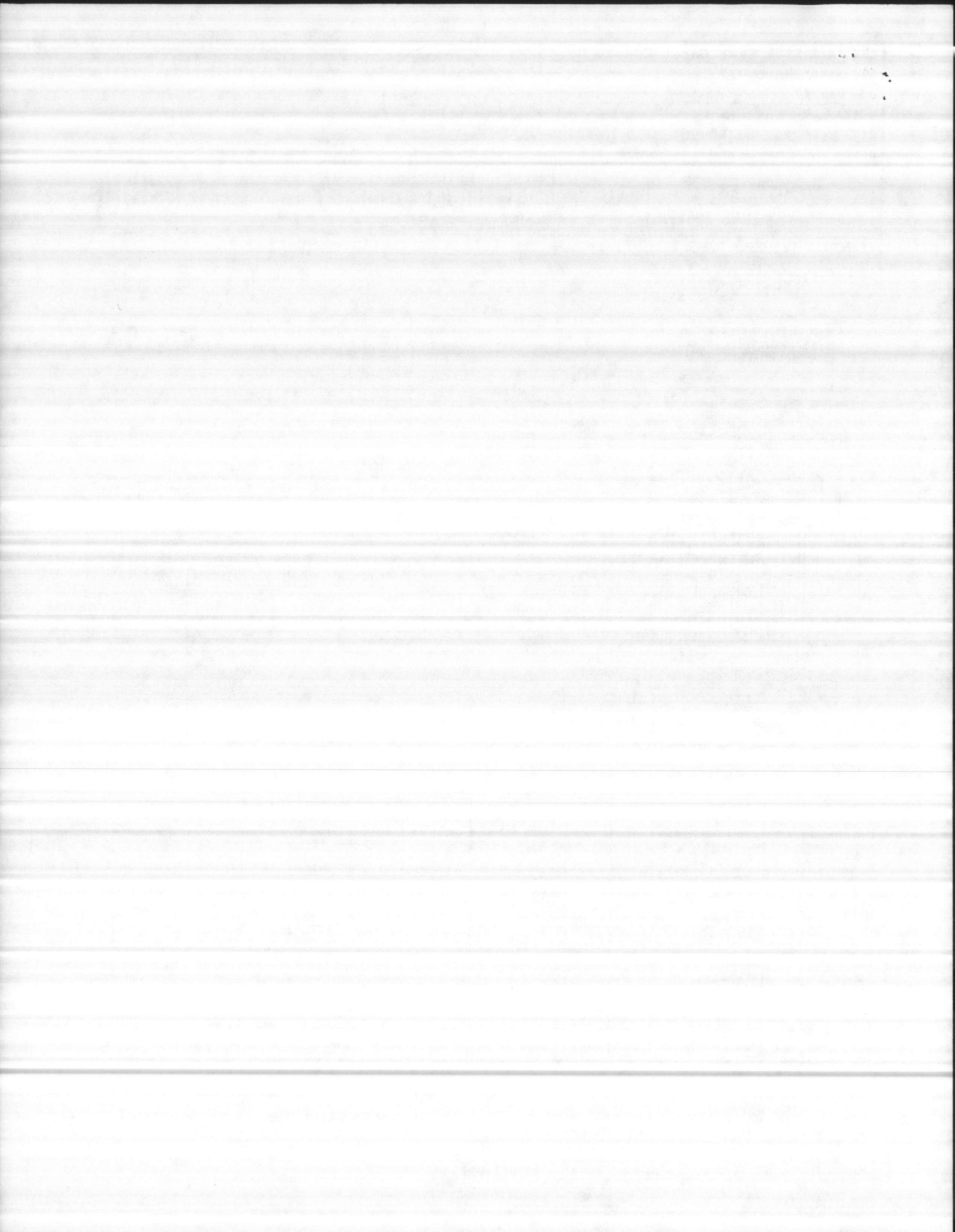
* Largest Motor Diameter

All tapped holes are Unified National Course, right hand thread.



Effective: MAY 18, 1980
 Supersedes: FEBRUARY 3, 1980

If properly endorsed this print is correct
 for frame & assembly positions indicated
 By _____ Date _____





Vertical Motors

Section 504

Page 1

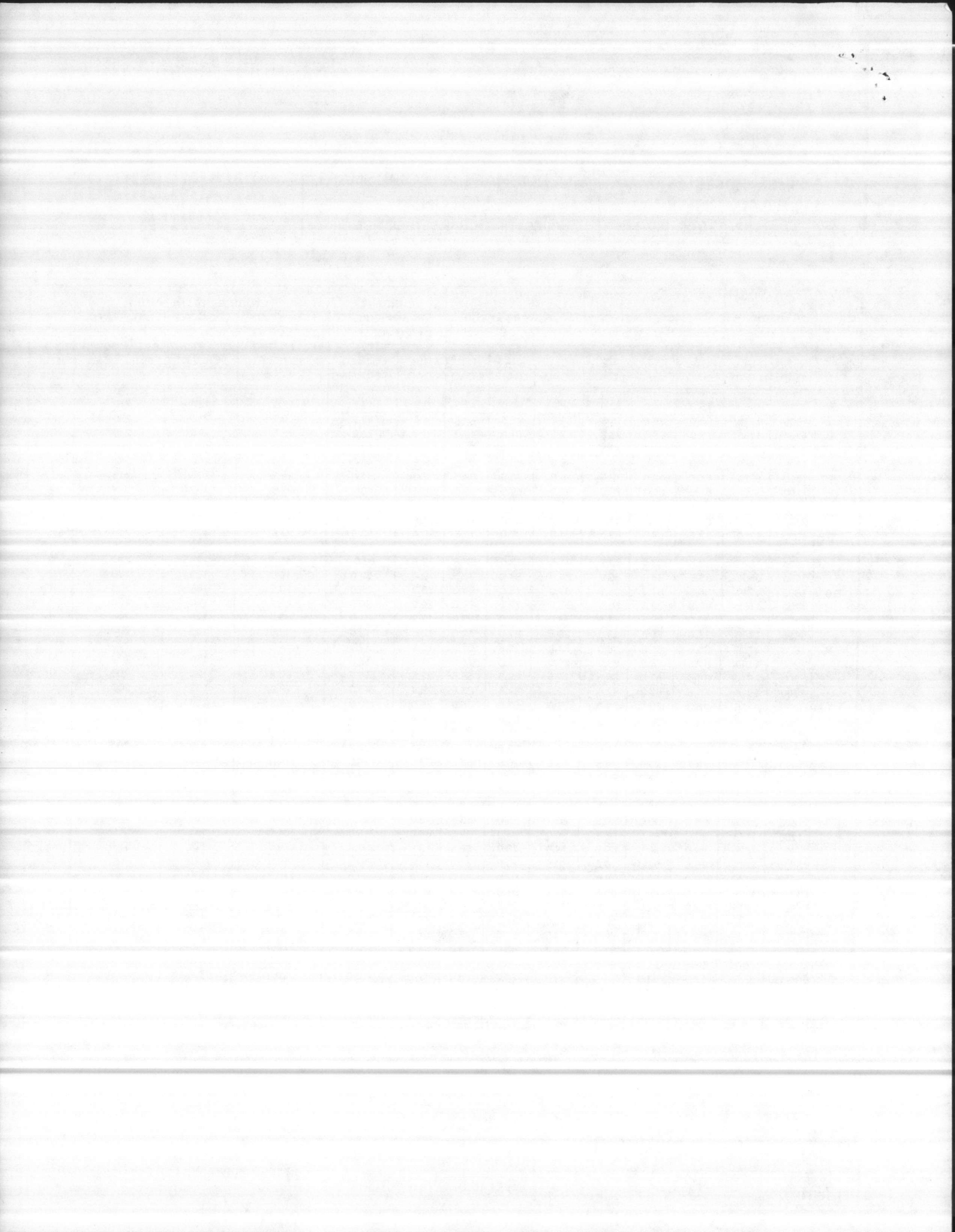
**3 PHASE 60 CYCLES
230,460,575 VOLTS
40°C. AMBIENT-C.RISE WP-1**

**HOLLOSHAFT & SOLIDSHAFT
MOTORS
OPERATING CHARACTERISTICS**

**ENGINEERING
DATA**

HP	RPM		% EFFICIENCY			% POWER FACTOR			CURRENT IN AMPHERES 460 VOLTS		TORQUE AT FULL VOLTAGE			NEMA CODE
	NO LOAD	FULL LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	LOCKED (STARTING)	FULL LOAD TORQUE AT FULL LOAD SPEED (LB.FT.)	LOCKED	PULL OUT	
												(STARTING)	(BREAKDOWN)	
													PERCENT OF FULL LOAD	
2	900	860	75.0	74.5	70.0	68.0	60.0	47.5	3.9	18.0	12.2	130	210	J
	1800	1720	80.0	79.5	75.5	81.0	72.5	59.5	4.4	32.0	9.2	215	250	K
3	1200	1155	78.5	78.0	75.0	69.0	61.0	49.0	5.4	23.0	13.6	155	230	G
	900	860	78.5	79.0	75.5	67.5	59.0	46.0	5.8	30.5	18.3	130	205	K
	3600	3480	81.0	82.0	80.5	86.0	80.5	69.5	6.9	45.0	7.5	150	215	H
5	1800	1725	81.5	82.0	79.5	84.0	76.5	63.5	7.0	47.0	15.2	185	225	J
	1200	1160	81.0	81.0	78.0	71.0	62.5	50.0	8.5	40.0	22.6	150	215	G
	900	875	80.5	80.0	77.0	72.0	64.0	51.0	8.2	44.0	30.0	130	205	H
7-1/2	3600	3460	84.0	85.0	84.0	88.0	84.0	75.5	9.8	63.0	11.4	140	200	H
	1800	1740	83.5	84.0	82.5	84.0	80.0	71.5	10.4	63.5	22.6	175	215	H
	1200	1170	83.0	83.5	81.0	80.5	74.0	61.5	10.5	63.0	33.7	150	205	H
	900	875	80.5	80.5	77.5	71.5	63.0	50.5	12.5	63.0	45.0	125	200	K
10	3600	3500	83.5	84.0	83.0	87.0	84.0	76.5	13.4	79.0	15.0	135	200	H
	1800	1740	86.5	87.0	85.5	81.0	75.0	64.0	13.3	82.0	30.2	165	200	H
	1200	1165	82.5	82.5	80.0	78.5	70.0	57.0	14.0	80.0	45.1	150	200	H
	900	875	86.0	86.5	84.5	72.0	65.0	53.0	15.5	81.0	60.0	125	200	H
15	3600	3485	85.0	86.5	86.0	88.5	87.0	82.0	19.5	112.0	22.6	130	200	G
	1800	1765	85.5	86.5	85.0	81.0	73.5	61.5	20.5	112.0	44.5	160	200	G
	1200	1160	87.5	89.0	89.0	85.0	82.0	74.5	19.4	115.0	68.0	140	200	G
	900	870	86.0	87.5	86.5	75.5	69.5	58.5	22.5	116.0	90.6	125	200	G
20	3600	3515	85.5	87.0	87.0	89.0	87.5	82.5	25.4	145.0	29.9	130	200	G
	1800	1765	88.0	89.0	89.0	85.0	82.5	75.0	26.0	143.0	59.5	150	200	G
	1200	1160	88.0	89.5	89.0	85.0	81.5	74.0	25.8	145.0	90.5	135	200	G
	900	880	85.0	86.5	86.0	74.5	69.0	57.0	30.5	140.0	120.0	125	200	G
25	3600	3510	89.0	90.0	89.0	88.5	87.0	81.0	30.4	172.0	37.4	130	200	F
	1800	1755	88.5	90.0	89.5	83.0	78.5	68.5	32.5	180.0	74.8	150	200	G
	1200	1180	85.5	87.0	86.5	84.0	79.0	68.0	33.5	193.0	111.5	135	200	G
	900	880	86.0	88.0	87.5	77.0	72.0	61.0	36.5	175.0	150.0	125	200	G
30	3600	3510	89.5	90.5	89.5	87.5	85.0	78.0	37.0	218.0	44.9	130	200	G
	1800	1755	89.0	90.0	89.5	80.5	75.0	63.5	40.0	217.0	89.8	150	200	G
	1200	1175	86.5	88.5	89.5	86.0	84.0	78.0	38.5	215.0	134.0	135	200	G
	900	880	88.0	89.5	89.5	75.0	70.0	59.5	43.5	205.0	179.0	125	200	G
40	3600	3515	90.0	91.0	90.0	86.5	83.0	75.0	48.5	310.0	59.8	125	200	G
	1800	1770	88.0	89.5	89.0	86.0	82.0	73.0	51.0	292.5	119.0	140	200	G
	1200	1175	87.5	89.5	90.0	84.5	81.0	72.0	52.0	292.0	179.0	135	200	G
	900	875	88.0	90.0	90.0	76.0	71.5	61.0	57.5	280.0	240.0	125	200	F
50	3600	3540	88.0	89.5	89.0	87.0	84.5	78.0	63.0	350.0	74.2	120	200	G
	1800	1765	89.0	90.5	90.5	84.5	81.0	72.0	64.0	339.5	150.0	140	200	G
	1200	1170	88.0	90.5	91.0	85.0	83.0	76.5	64.0	370.0	224.5	135	200	G
	900	875	88.5	90.0	90.0	80.0	76.0	67.0	68.0	325.0	300.0	125	200	G
60	3600	3540	89.5	91.0	91.0	89.0	89.0	86.0	72.5	410.0	89.0	120	200	G
	1800	1770	90.0	91.0	91.0	86.0	83.0	75.0	75.0	454.5	178.0	140	200	G
	1200	1175	88.5	90.0	89.5	85.5	82.0	72.5	76.0	460.0	268.0	135	200	G
	900	875	89.0	90.5	90.5	80.5	77.0	68.0	80.5	410.0	360.0	125	200	G

See Page 2 for higher horsepowers and notes.



CUSTOMER NAME EAST COAST CONST. CO.
 CUST. ORD. NO. 1217
 U.S. ORD. NO.
 NAME: CAMP LEJUENE
 QTY. 8 HP 15 FRAME 254 TCV PHASE 3
 HERTZ 60 R.P.M. 1800 VOLTS 208



Vertical Motors

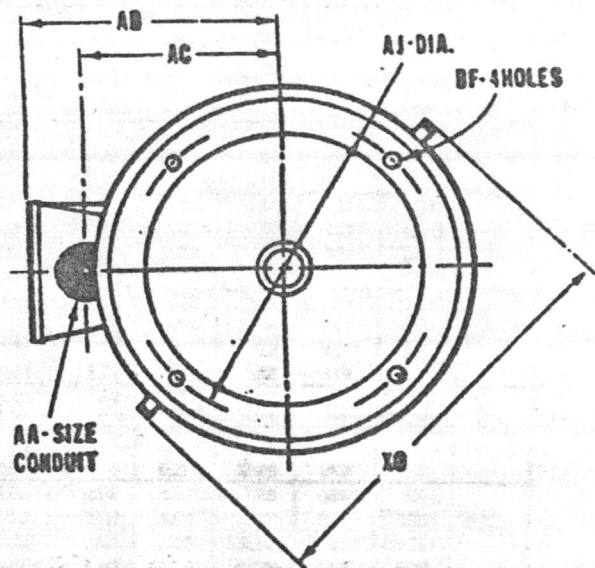
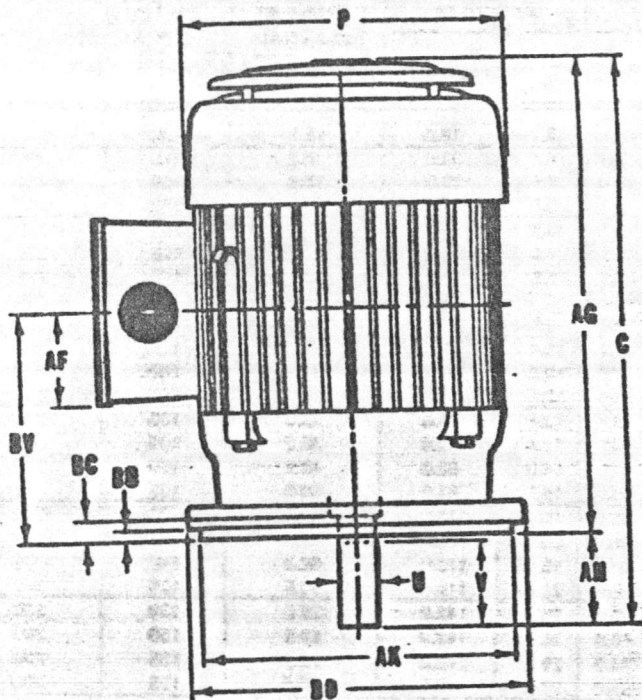
Section 505
 Page 51

OPEN DRIPPROOF TYPE AV
 FRAMES 182TC THRU 286TCV

NORMAL THRUST:
 VERTICAL SOLID-SHAFT
 NEMA C BASE

DIMENSIONS

FEATURES: 15 HP, 1800 RPM, Frame 254TCV 1-15 SF
 Continuous Duty



Conduit opening may be located in steps of 90 deg. Standard as shown with conduit down.

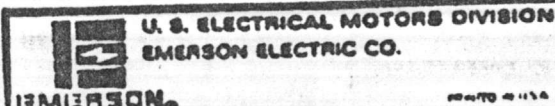
ALL DIMENSIONS ARE IN INCHES

FRAME	C	P*	U	V MIN.	AA	AB	AC	AF	AG	AH	AJ DIA.
182,184 TC	17-3/4	9-1/2	1-1/8	2-1/2	3/4	6-5/16	5-3/8	2-5/8	15-1/8	2-5/8	7-1/4
213,215 TCV	22-7/32	11-1/8	1-3/8	3-1/8	1	7-1/2	6-7/16	3-5/16	19-3/32	3-1/8	7-1/4
254,256 TCV	24-1/16	14	1-5/8	3-3/4	1-1/4	8-15/16	7-3/4	3-5/8	20-5/16	3-3/4	7-1/4
284,286 TCV	26-3/16	14	1-7/8	4-3/8	1-1/2	9-1/8	7-9/16	4-7/16	21-11/16	4-1/2	9
284,288 TCV	26-3/16	14	1-7/8	4-3/8	1-1/2	9-1/8	7-9/16	4-7/16	21-11/16	4-1/2	9

FRAME	AK	BB MIN.	BC	BD	BF - TAP	BV	XO	SQ. KEY	BASIC BRACKET PART NUMBER
182,184 TC	8-1/2	1/4	1/8	9	1/2-13 X 3/4	6-3/8	11-3/16	1/4 X 1-3/4	168101
213,215 TCV	8-1/2	1/4	1/4	9	1/2-13 X 3/4	8	12-3/4	5/16 X 2-3/8	168737
254,256 TCV	8-1/2	1/4	1/4	8-1/2	1/2-13 X 3/4	11-7/16	16-7/8	3/8 X 2-15/16	347101
284,286 TCV	10-1/2	1/4	1/8	10-1/2	1/2-13 X 3/4	12-1/4	16-7/8	1/2 X 3-5/16	347103
284,288 TCV	10-1/2	1/4	1/8	12-1/2	1/2-13 X 3/4	12-1/4	16-7/8	1/2 X 3-5/16	347105

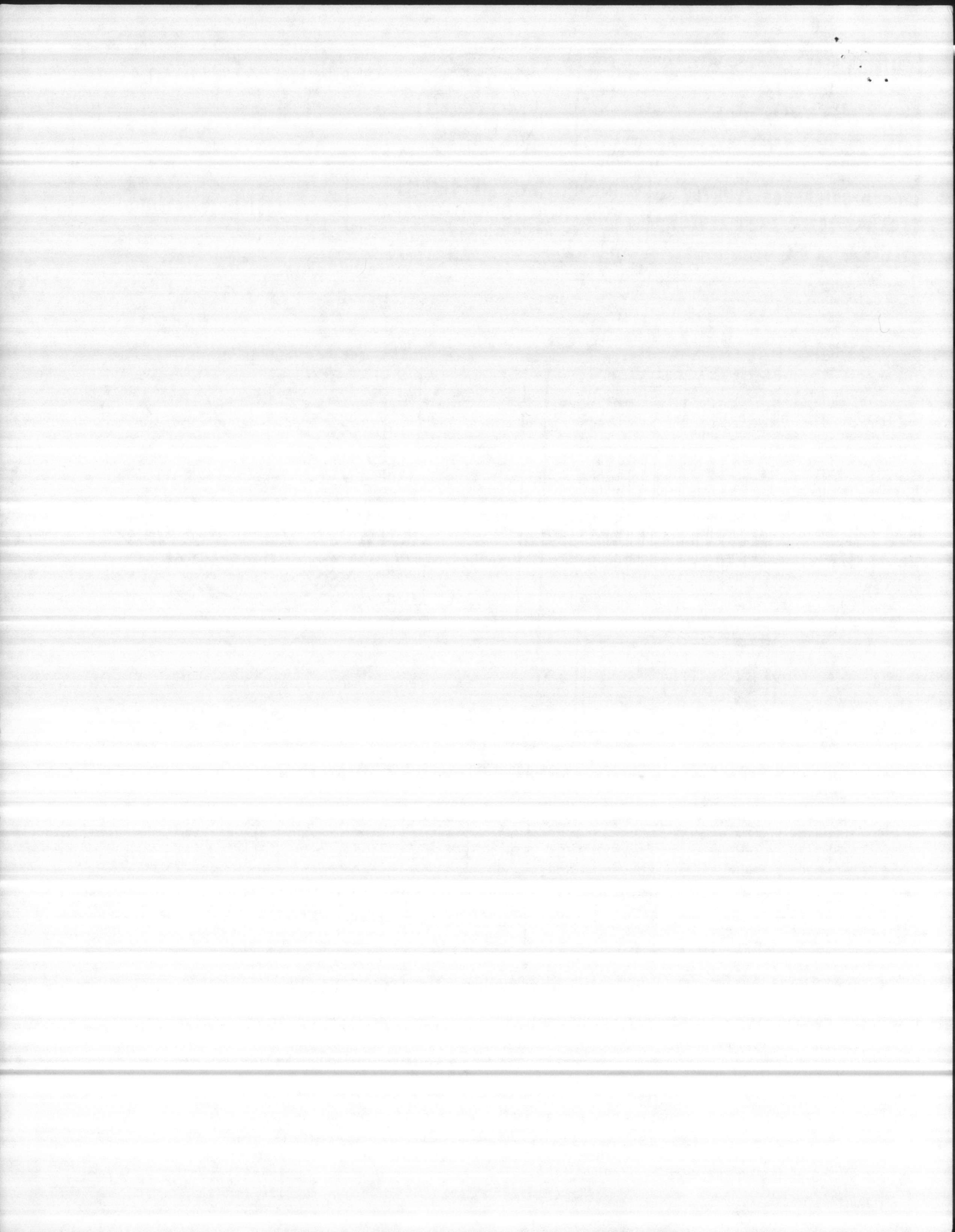
All rough casting dimensions may vary by 1/4" due to casting variations.
 All tapped holes are Unified National Course, right hand thread.
 *Largest Motor Diameter

TOLERANCES:
 Face runout: .004 F.I.R.
 Shaft Extension Diameter: 1-1/8" thru 1-1/2" "U" Dia.: +.0000", -.0008"
 1-5/8" "U" Dia.: +.000", -.001"
 Permissible Eccentricity of Mounting Rabbet: .004" F.I.R.
 Permissible Shaft Runout: .003" F.I.R.
 "AK" Dimension +.000"; -.003"



Effective: JUNE 16, 1969
 Supersedes: MAY 22, 1979

If properly endorsed this print is correct for frame & assembly positions indicated.
 By JK Date 11/2/82





Vertical Motors

Section 504

Page 1

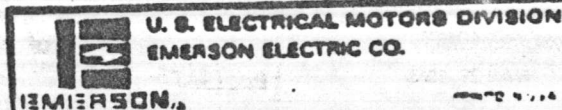
3 PHASE 60 CYCLES
208 VOLTS
40°C. AMBIENT-C.RISE WP-1

HOLLOSHAFT & SOLIDSHAFT
MOTORS
OPERATING CHARACTERISTICS

ENGINEERING
DATA

HP	RPM		% EFFICIENCY			% POWER FACTOR			CURRENT IN AMPHERES 480 VOLTS		TORQUE AT FULL VOLTAGE			NEMA CODE	
	NO LOAD	FULL LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	LOCKED (STARTING)	FULL LOAD TORQUE AT FULL LOAD SPEED (L.B.F.T.)	LOCKED			FULL OUT
												(STARTING)	(BREAKDOWN)		
2	900	900	75.0	74.5	70.0	68.0	60.0	47.5	3.9	18.0	12.2	130	210	J	
	1800	1720	80.0	79.5	75.5	81.0	72.5	59.5	4.4	32.0	9.2	218	250	K	
3	1200	1158	78.5	78.0	75.0	69.0	61.0	49.0	5.4	23.0	13.8	158	230	G	
	900	890	78.5	78.0	75.5	67.5	59.0	48.0	5.8	30.5	18.5	139	200	K	
	3600	3480	81.0	82.0	80.5	88.0	80.5	69.5	6.9	45.0	7.5	150	215	H	
5	1800	1728	81.5	82.0	79.5	84.0	78.5	63.5	7.0	47.0	15.2	186	225	J	
	1200	1160	81.0	81.0	78.0	71.0	62.5	50.0	8.5	40.0	22.8	150	215	G	
	900	875	80.5	80.0	77.0	72.0	64.0	51.0	8.2	44.0	30.0	130	205	H	
7-1/2	3600	3480	84.0	85.0	84.0	88.0	84.0	75.5	9.8	63.0	11.4	140	200	H	
	1800	1740	83.5	84.0	82.5	84.0	80.0	71.5	10.4	63.5	22.8	175	215	H	
	1200	1170	83.0	83.5	81.0	80.5	74.0	61.5	10.5	63.0	33.7	150	205	H	
	900	875	80.5	80.5	77.5	71.5	63.0	50.5	12.5	63.0	45.0	125	200	K	
10	3600	3500	83.5	84.0	83.0	87.0	84.0	76.5	13.4	79.0	15.0	135	200	H	
	1800	1740	83.5	84.0	82.5	81.0	75.0	84.0	13.3	82.0	30.2	166	200	H	
	1200	1165	82.5	82.5	80.0	78.5	70.0	57.0	14.0	80.0	45.1	150	200	H	
	900	875	86.0	86.5	84.5	72.0	66.0	53.0	15.5	81.0	60.0	125	200	H	
15	3600	3480	85.0	85.5	83.0	88.5	87.0	82.0	18.5	112.0	22.8	130	200	G	
	1800	1765	85.5	86.5	85.0	81.0	73.5	61.5	20.5	112.0	44.5	160	200	G	
	1200	1160	87.5	89.0	89.0	85.0	82.0	74.5	19.4	115.0	68.0	140	200	G	
	900	870	86.0	87.5	89.5	75.5	69.5	58.5	22.5	118.0	90.9	125	200	G	
20	3600	3515	85.5	87.0	87.0	89.0	87.5	82.5	25.4	145.0	29.9	130	200	G	
	1800	1765	88.0	89.0	89.0	85.0	82.5	75.0	28.0	143.0	59.5	150	200	G	
	1200	1160	88.0	89.5	89.0	85.0	81.5	74.0	25.8	145.0	90.5	135	200	G	
	900	880	85.0	86.5	86.0	74.5	69.0	57.0	30.5	140.0	120.0	125	200	G	
25	3600	3510	89.0	90.0	89.0	88.5	87.0	81.0	30.4	172.0	37.4	130	200	F	
	1800	1755	89.5	90.0	89.5	83.0	78.5	68.5	32.5	180.0	74.8	150	200	G	
	1200	1180	85.5	87.0	86.5	84.0	79.0	68.0	33.5	193.0	111.5	135	200	G	
	900	880	86.0	88.0	87.5	77.0	72.0	61.0	36.5	175.0	150.0	125	200	G	
30	3600	3510	89.5	90.5	89.5	87.5	85.0	78.0	37.0	218.0	44.9	130	200	G	
	1800	1755	89.0	90.0	89.5	80.5	75.0	63.5	40.0	217.0	89.8	150	200	G	
	1200	1175	86.5	88.0	88.5	88.0	84.0	78.0	38.5	215.0	134.5	135	200	G	
	900	890	88.0	89.5	89.5	75.0	70.0	59.5	43.5	205.0	179.0	125	200	G	
40	3600	3515	90.0	91.0	90.0	88.5	83.0	75.0	48.5	310.0	59.8	125	200	G	
	1800	1770	88.0	89.5	89.0	88.0	82.0	73.0	51.0	292.5	119.0	140	200	G	
	1200	1175	87.5	88.5	90.0	84.5	81.0	72.0	52.0	292.0	179.0	135	200	G	
	900	875	88.0	90.0	90.0	78.0	71.5	61.0	57.5	280.0	240.0	125	200	F	
60	3600	3540	88.0	89.5	89.0	87.0	84.5	78.0	63.0	350.0	74.2	120	200	G	
	1800	1785	89.0	90.5	90.5	84.5	81.0	72.0	64.0	339.5	150.0	140	200	G	
	1200	1170	88.0	90.5	91.0	85.0	83.0	78.5	64.0	370.0	224.5	135	200	G	
	900	875	88.5	90.0	90.0	80.0	78.0	67.0	68.0	325.0	300.0	125	200	G	
80	3600	3540	89.5	91.0	91.0	89.0	89.0	86.0	72.5	410.0	88.0	120	200	G	
	1800	1770	90.0	91.0	91.0	88.0	83.0	75.0	75.0	454.5	178.0	140	200	G	
	1200	1175	88.5	90.0	89.5	85.5	82.0	72.5	76.0	400.0	268.0	135	200	G	
	900	875	89.0	90.5	90.5	80.5	77.0	68.0	80.5	410.0	360.0	125	200	G	

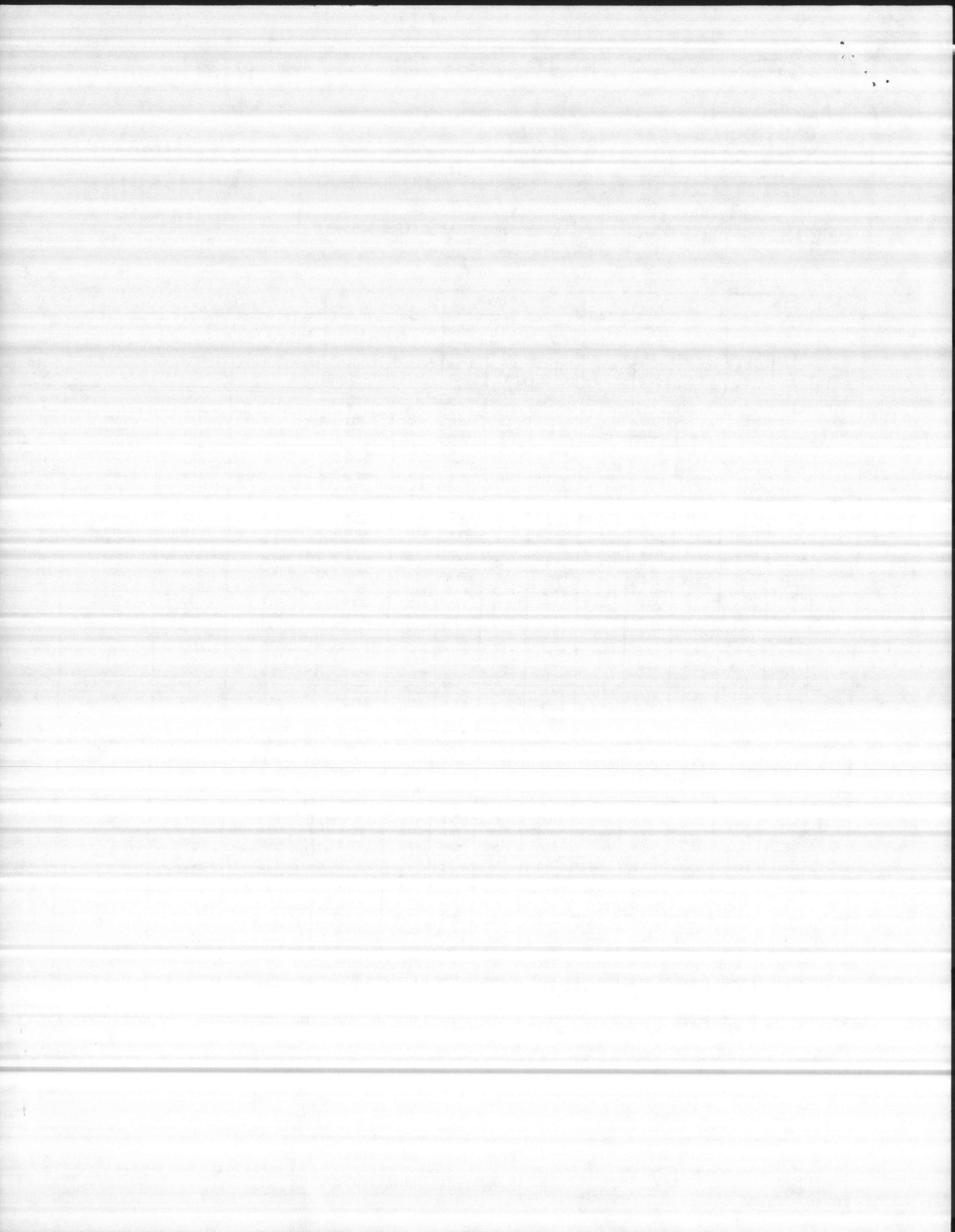
See Page 2 for higher horsepower and notes.



U. S. ELECTRICAL MOTORS DIVISION
EMERSON ELECTRIC CO.

Effective: NOVEMBER 15, 1970
Supersedes: NOVEMBER 13, 1970

REFER TO COMPANY FOR CERTIFIED VALUES

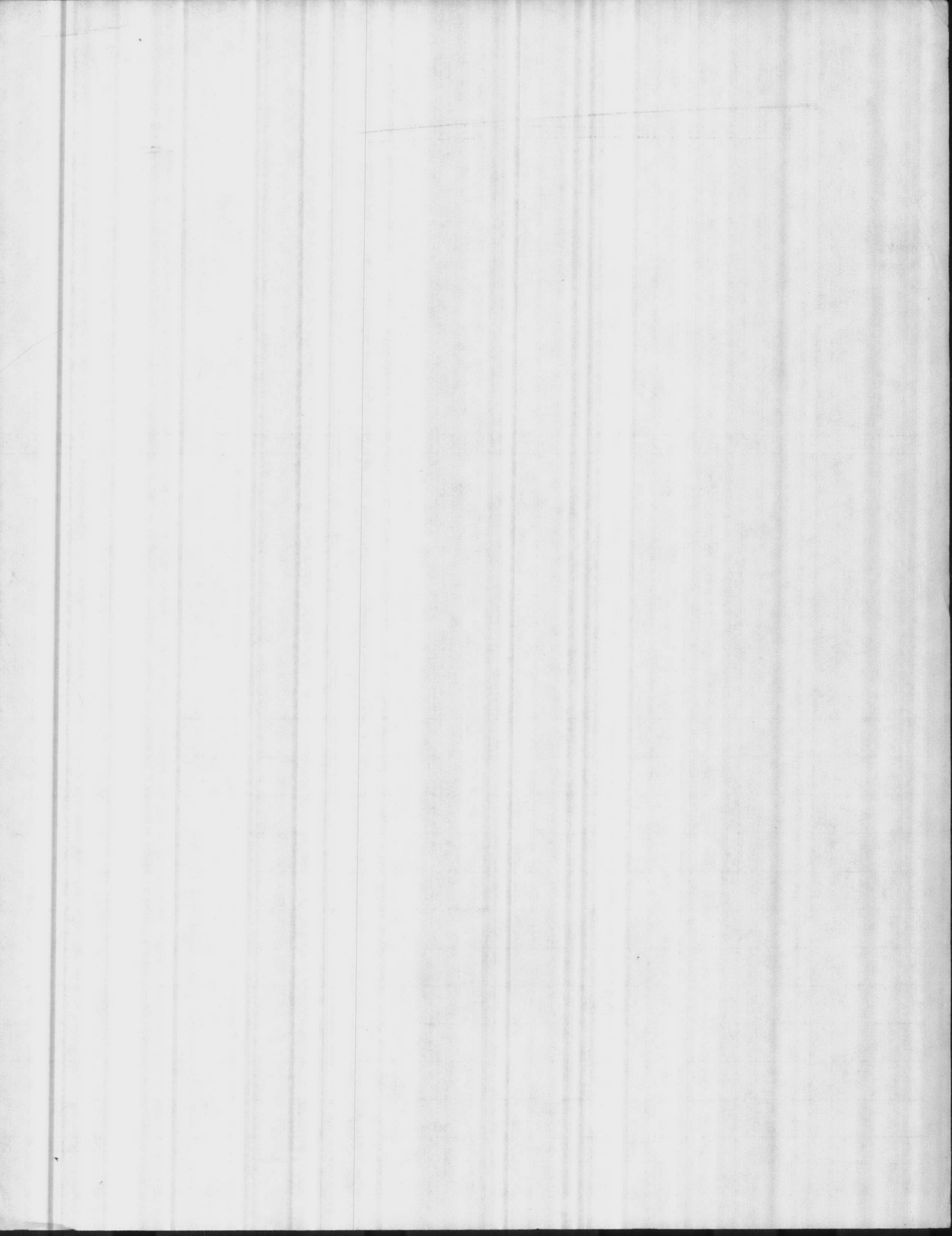


NEW

WELL NUMBER	BY	DATE	AIR LINE	STATIC LEVEL	PUMPING LEVEL	DRAIN DOWN	DISCHARGE PRESSURE	GPM	START TIME
TT 23	THOMAS / BROWN	10-4-84	75	10'	20	10	71	108	0840
					26	16	65	130	0900
					30	20	60	149	0910
					35	25	55	162	0920
					38	28	50	180	0930
					41	31	46	197	0945
					45	35	43	216	0955
					48	38	39	230	1005
					51	41	35	252	1015

REMARKS
Left net at 35 PSI 252 GPM

MANUFACTURER	STAGE	S.N.	TOTAL HEAD	SIZE



FILE FOLDER

DESCRIPTION ON TAB:

T.T. 25

Outside/inside of actual folder did not contain hand written information

Outside/inside of actual folder did contain hand written information

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NORTH CAROLINA
DIVISION OF MINERAL RESOURCES
P.O. BOX 27687
RALEIGH, NORTH CAROLINA 27611

Service: GR-SP-SPR-GIL

EAST COAST CONSTRUCTION CO. INC.

P. O. BOX 5004

JACKSONVILLE, N. C. 28540

COMPANY EAST COAST CONSTRUCTION CO.

LAND OWNER CAMP LEJUNE

WELL NAME TARAWA TERRACE Well # TT 25

COUNTY ONSLOW N62970-79-C-4976

Elevation

KB

DF

GL

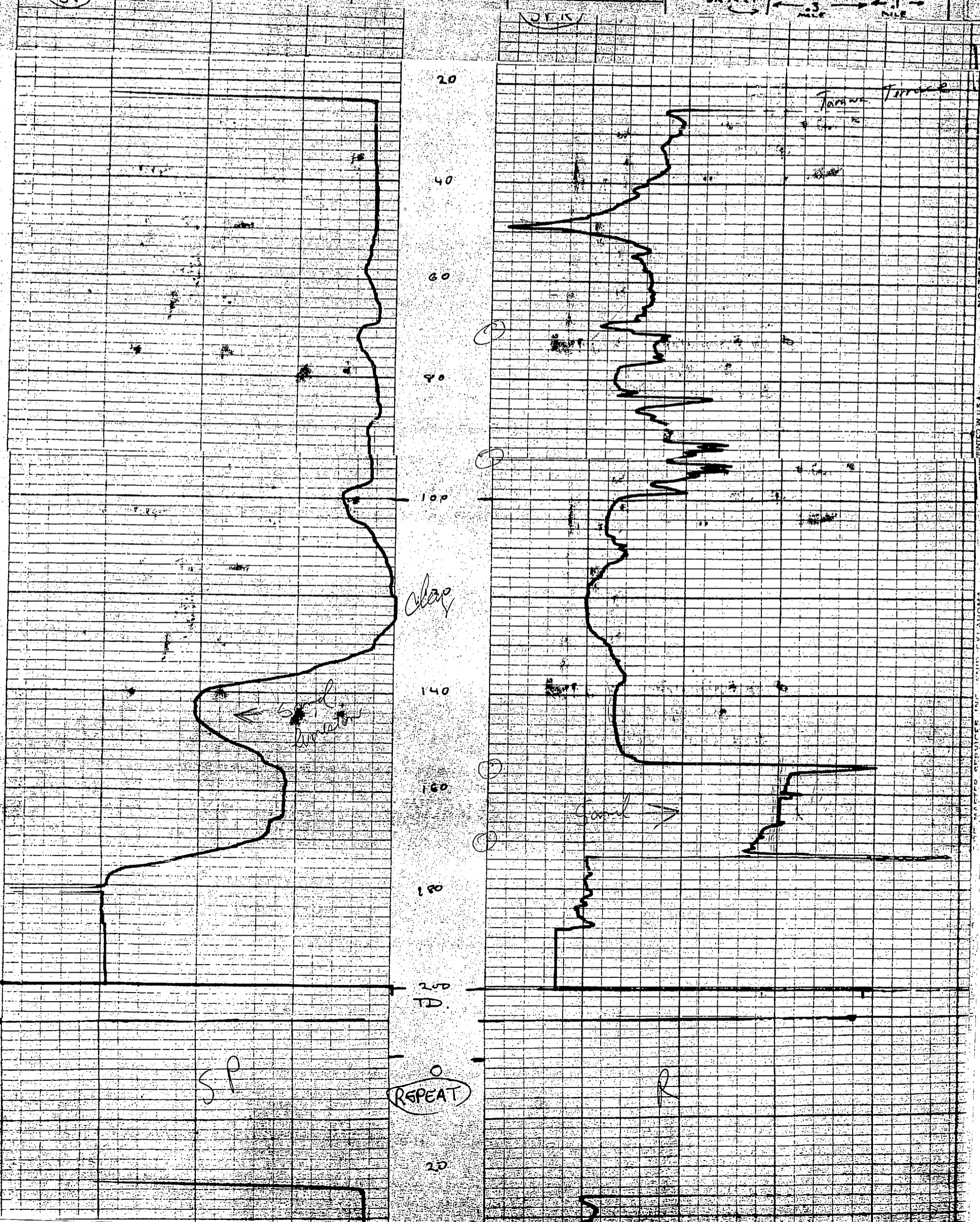
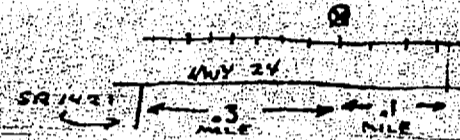
Log Zero GL

Drig Zero

Location AT ENTRANCE #1 OF TARAWA TERRACE
BETWEEN ATHLETIC FIELD AND RAILROAD TRACES
~ 3444.5
772.40

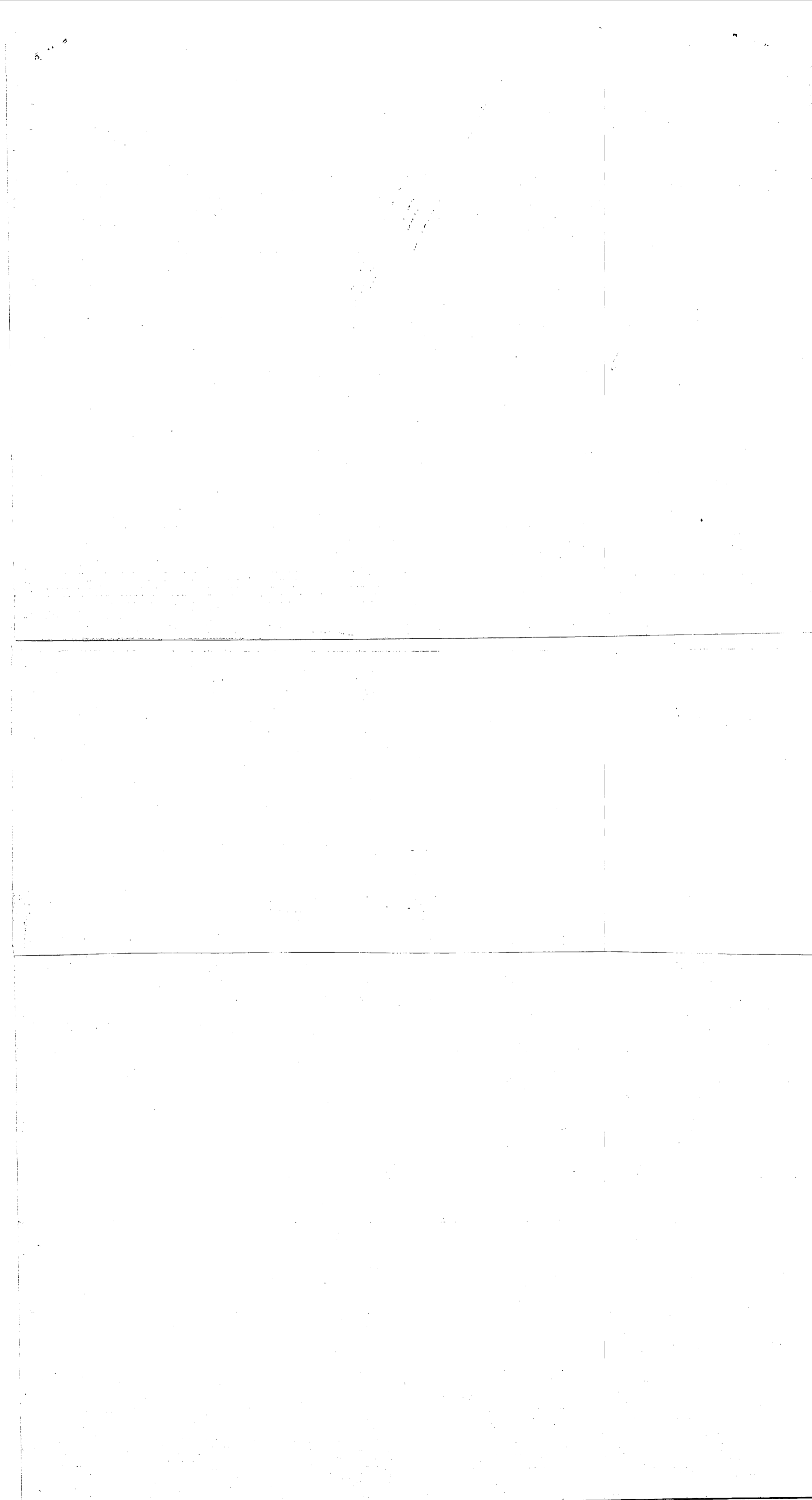
Date	11/14/80		
Run No.	1	2	3
Type Log	SP-SPR	GR-SPR	GIL
Depth Logger	200	190	190
Depth Driller	200	200	200
Bottom Logged Interval	200	190	190
Top Logged Interval	26'	5'	24'
Type fluid in hole			
Recorded by	ACKENZIE		

Remarks
WATER LEVEL @ 26'



PRINTED IN U.S.A.

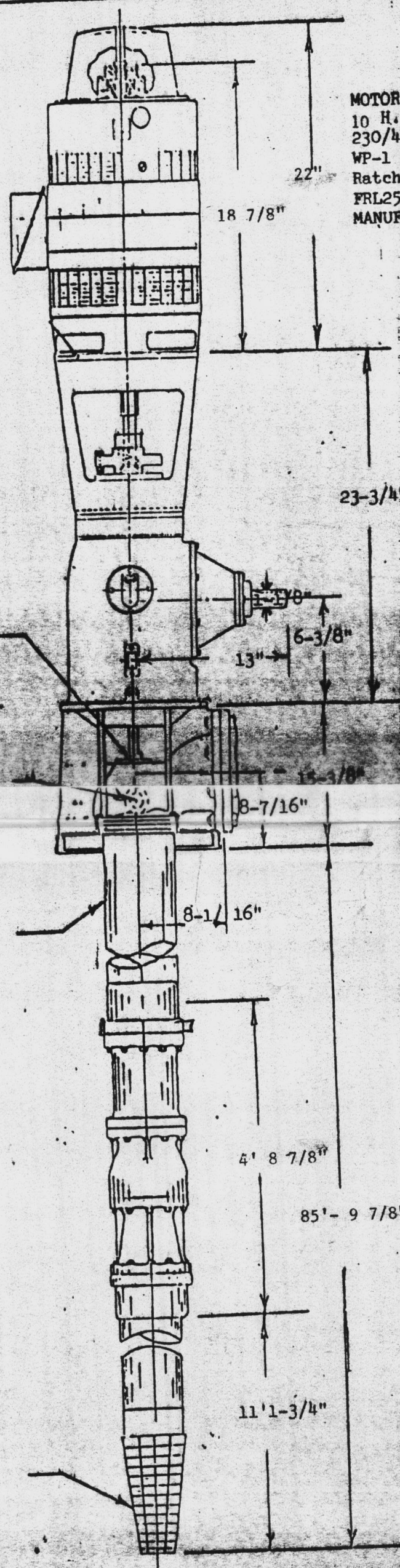
NO. 101 3173





Turbine Pumps

Larawa Tense



MOTOR SPECIFICATIONS:
 10 H.P. 1800 RPM 3 Phase
 230/460V 60HZ V.H.S. H.T. Motor
 WP-1 Enclosure Non-Reversing
 Ratchet 1" C.B. 10" B.D.
 FRL254TP
 MANUFACTURED BY: GENERAL ELECTRIC

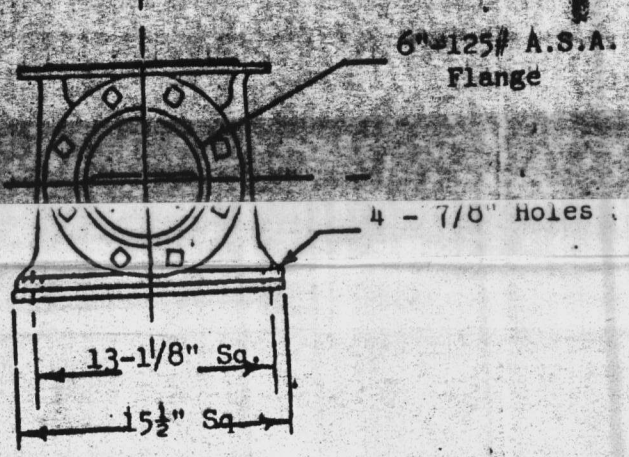
GEAR DRIVE SPECIFICATIONS:
 Model Q20 - Combination Type
 Non-Reversing Ratchet 1:1 Ratio
 With Sliding Clutch
 MANUFACTURED BY: AMARILLO

Stuffing Box Construction

1" - NPT Thread

Water Lubricated Column & Shaft

6" Galvanized Cone Strainer



PUMP MODEL 10-8KCD7

DIS. HEAD MODEL L6A

#TT25

DESIGN POINT:

CAPACITY 190 GPM

TOTAL HEAD 128 FEET

FOR: EAST COAST CONSTRUCTION

JOB: U.S. MARINE CORP AIR STATION
JACKSONVILLE, N.C.

FOUNDATION PLATE DRAWING SEPARATE

BY: E.E. ROWEDDA

85'-9 7/8"
 11'-1 3/4"

 74'-8 1/8"
 4'-8 7/8"

 70'-0"
 69'-11 1/4"

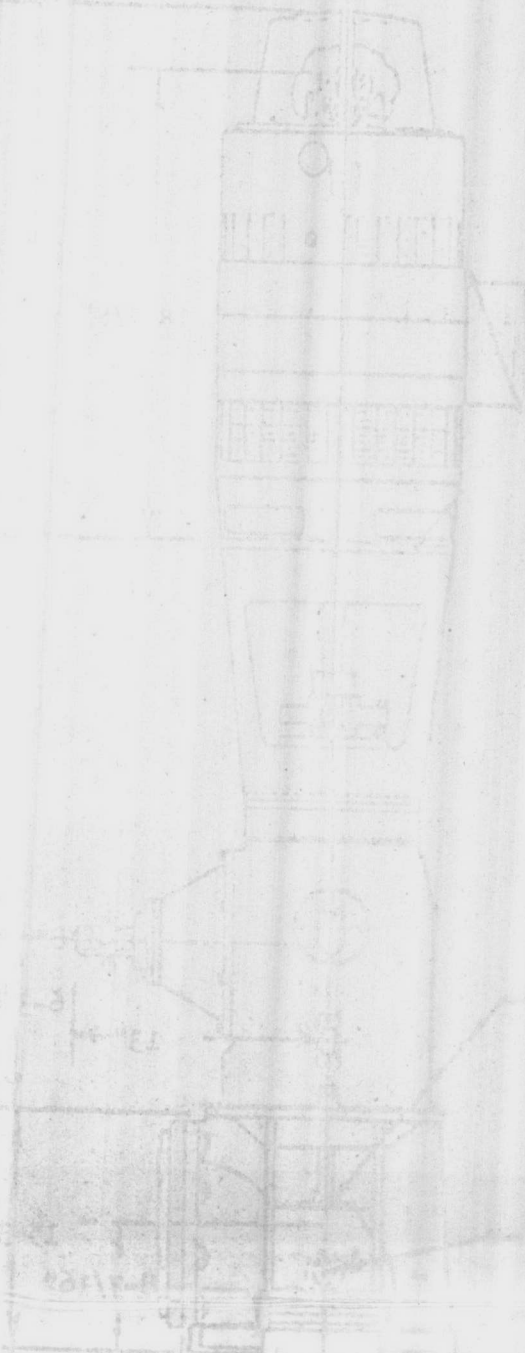
Turbine Pumps



Vertical Turbine

MADE IN U.S.A.
 1500 RPM
 3000 GPM
 100 FT HEAD
 10 HP
 10" DISCHARGE
 10" INLET

10" DISCHARGE
 10" INLET
 10 HP
 100 FT HEAD
 3000 GPM
 1500 RPM
 MADE IN U.S.A.



Water Lubricated
 Column & Shaft



PUMP MODEL
 10" HEAD
 10 HP
 100 FT HEAD
 3000 GPM
 1500 RPM
 MADE IN U.S.A.

FOUNDATION
 10" DISCHARGE
 10" INLET

10" DISCHARGE
 10" INLET
 10 HP
 100 FT HEAD
 3000 GPM
 1500 RPM
 MADE IN U.S.A.

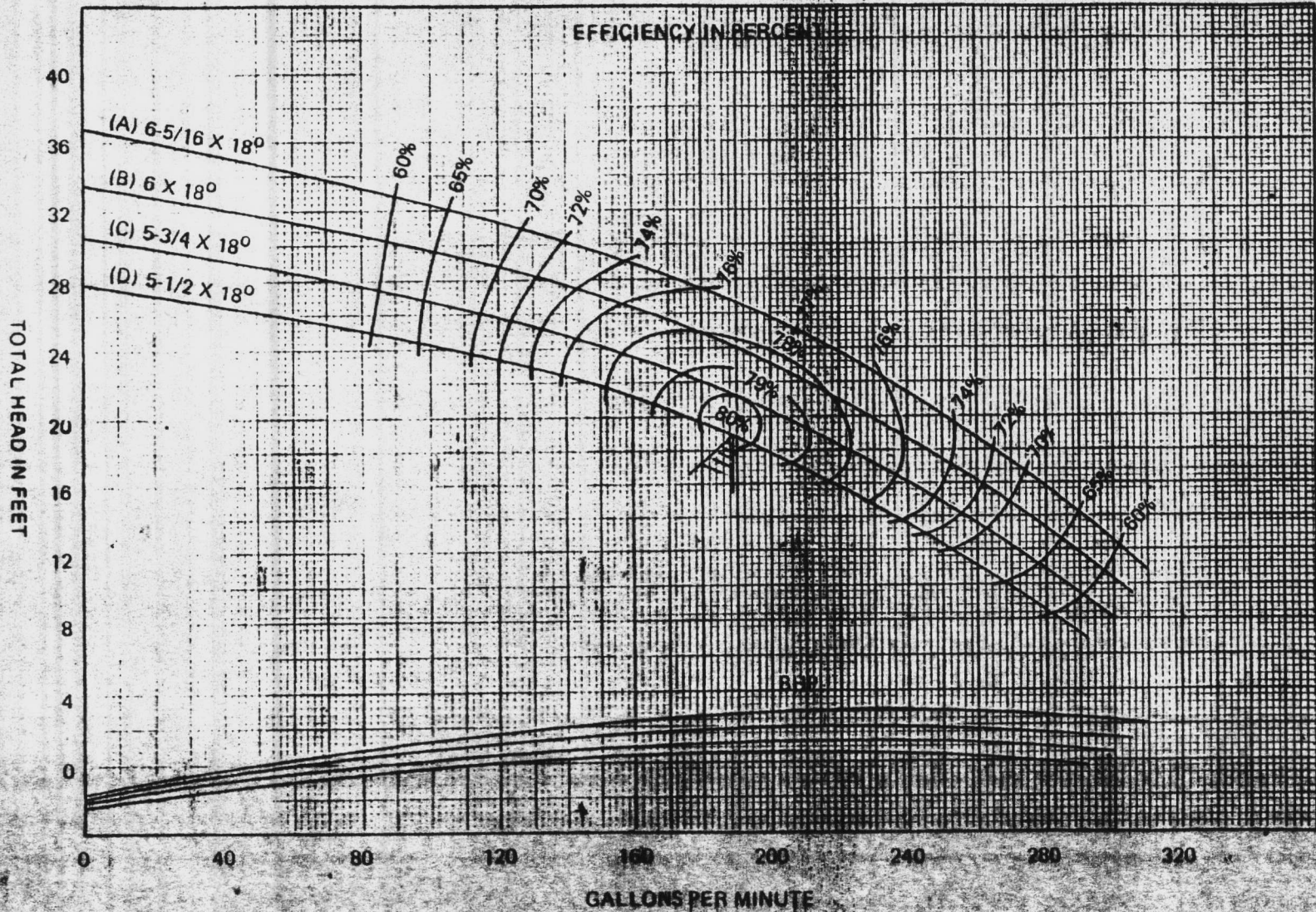
For: East Coast Construction CO.

Job: U. S. Marine Corp Air Station
Jacksonville, N. C.

TURBINE PUMP CURVE

190 GPM @ 128' TDH

80% Eff. = 7.67 BHP



BRAKE HORSEPOWER

NUMBER OF BOWLS	CHANGE EFFICIENCY AS FOLLOWS
1	-3
2	+1

Change in efficiency may affect both head and horsepower

Bowl Dia.	7-1/2 In.
Bowl No.	3591, C.I., ENAM.
Impeller No.	3680, BRONZE
Eye Area	5.72 Sq. In.
Imp. Type	CLOSED K = 3.93

STAGE PERFORMANCE	
Curve No.	8K-2
R. P. M.	1760
Bowl	8KC

Performance based on pumping clear, fresh water at a temperature not over 85°F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.

SECTION
2120

JAN. 15, 1970

8KC



67-1000-01

ВНИМАНИЕ

100-1000-01

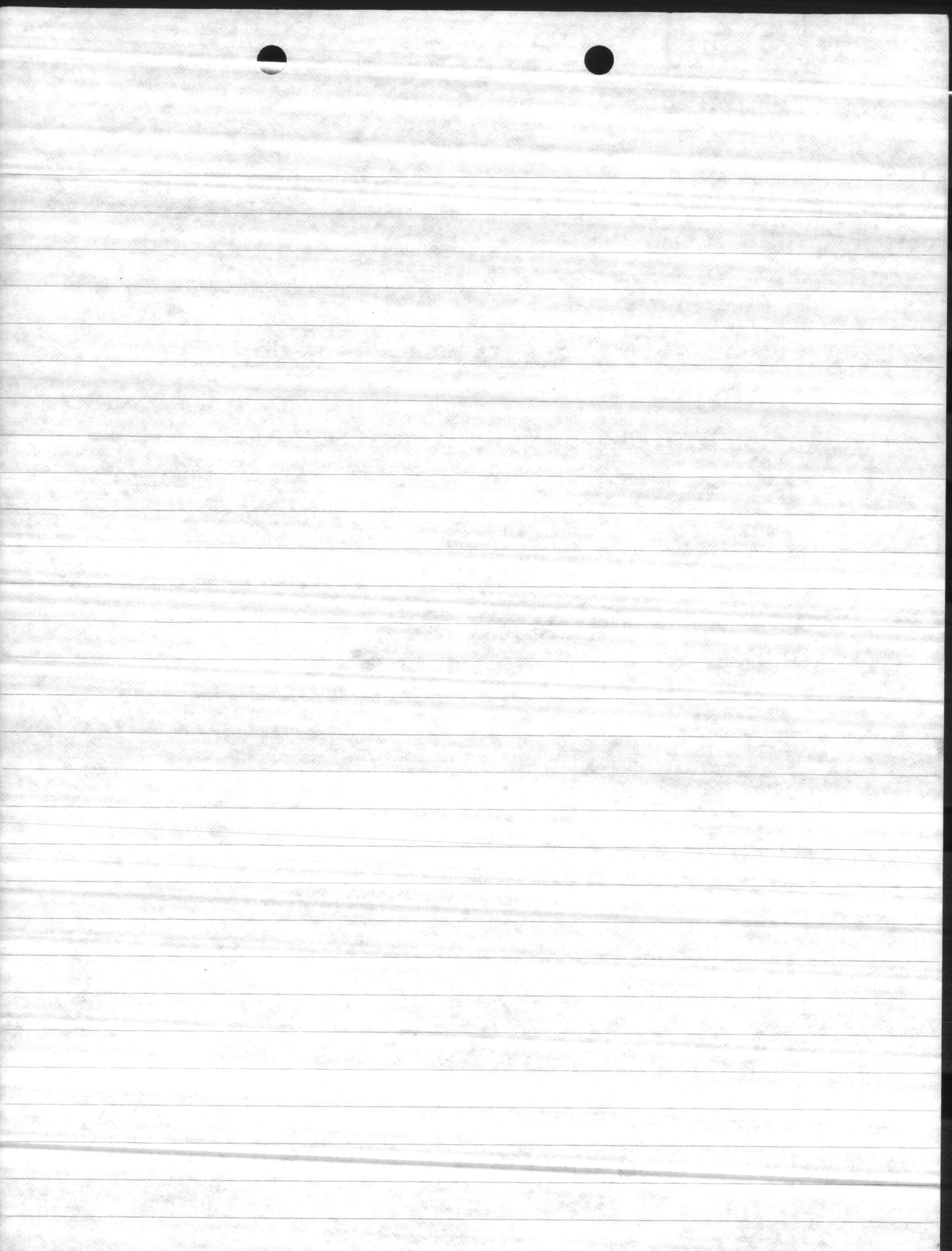
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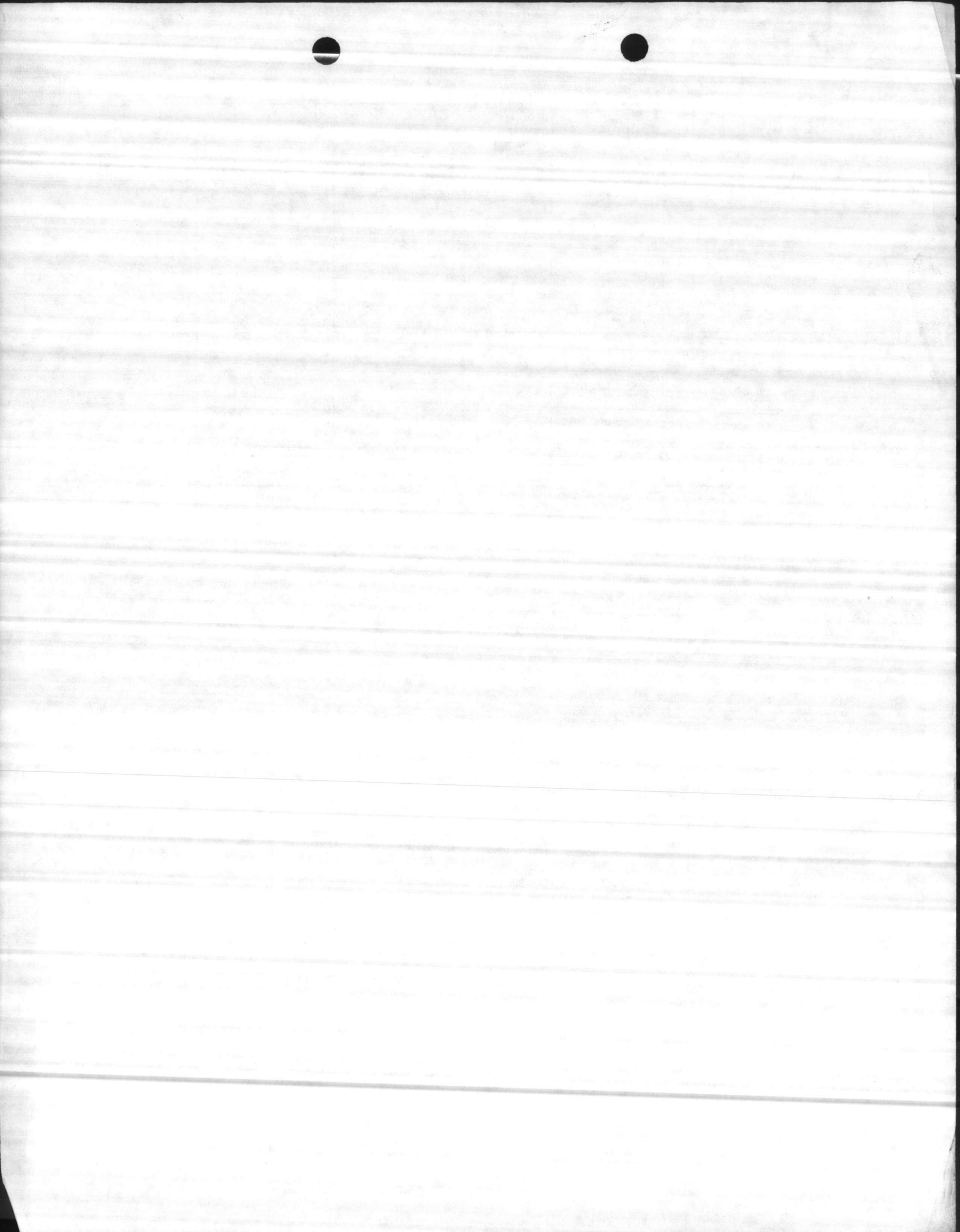
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№	ИЗМ.	ИЗМЕНЕНИЯ	ПОДПИСАНИЕ	ДАТА
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T 25
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AL 70 SL 38 PL 60 DD 22 PSI 37 GPM 130







John Chapman & Co.
1881

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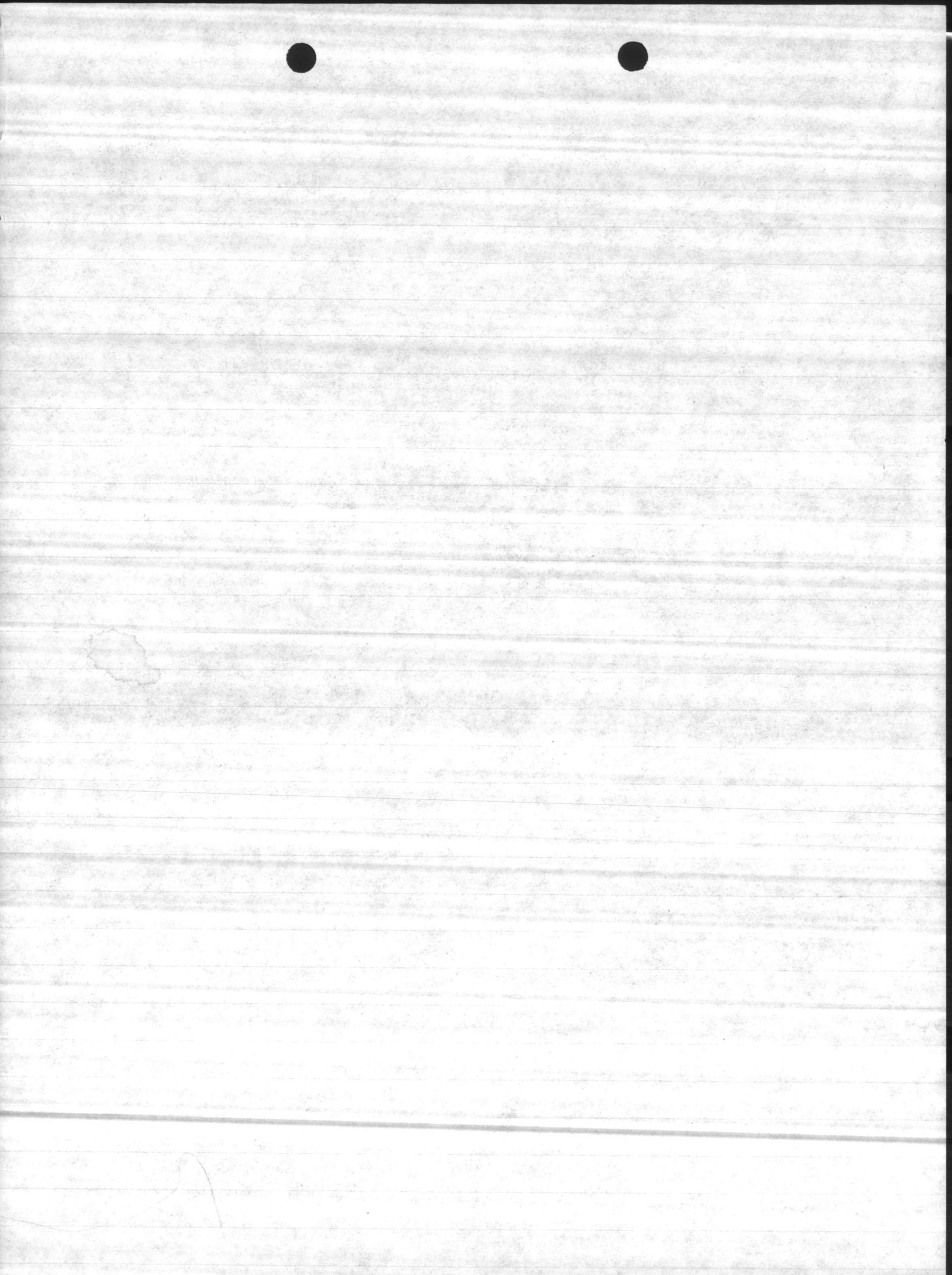
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TT-25- Air Line
70'



DRILLER'S LOG
 Tarawa Terrace, Camp Lejeune
 Jacksonville, North Carolina
 11/10/80- 11/12/80

*Well TT-25
 1462976-79-C-4476*

Test hole diameter: 9 7/8"
 Bit: Medium Formation - 3 cone roller tooth
 Drill Rig: Failing 1500
 Drill Speed: 2nd gear - 150 rpm, 3rd gear 200 rpm
 Driller: Frank Quidley, Groundwater Development Company, Inc.

<u>Sample</u>	<u>Depth</u>	<u>Drill Time</u>	<u>Description</u>	<u>Drill Speed</u>
0-5	0-1	2 min	Topsoil- organic silty sand w/roots	2nd
	1-3	3 min	Grey silty sand w/clay	2nd
	3-3.5	5 min	Orange sand	2nd
	3.5-5.0	5 min	Grey silty clay	2nd
5-10	5.0-10	60 min	Grey silty clay	3rd
10-15	10 -12	60 min	Grey tan clay-mottle, (water table?)	3rd
	12-15	15 min	Tan fine sand	2nd
15-20	15-17.5	15 min	Tan fine sand	2nd
	17.5-20	5 min	Tan medium sand	2nd
20-25	20-21	1 min	Tan medium sand	2nd
	21-22	5 min	Tan silty clay	2nd
	22-24	10 min	Tan-red sandstone -Drilling break	2nd
	24-25	10 min	Tan medium sand	3rd
25-30	25-30	10 min	Tan fine-medium sand	2nd
30-40	30-38	10 min	Tan fine medium sand well sorted	2nd
	38-40	5 min	Grey fine-medium sand with shell	2nd
40-50	40-50	10 min	Grey medium sand well sorted (chatter)	2nd
50-60	50-60	10 min	Grey medium sand well sort (chatter)	2nd
60-70	60-61	5 min	Grey med. sand well sorted w/shell	2nd
	61-70	10 min	Grey tan shell hash w/fine sand matrix (lost circulation)	2nd
70-80	70-80	10 min	Grey tan w/shell hash w/fine sand	2nd
80-90	80-90	20 min	Grey fine sand w/shell hash	2nd
90-100	90-100	25 min	Grey fine sand & clay w/shell	3rd
100-110	100-110	30 min	Grey fine sand & clay w/shell	2nd
110-120	110-120	60 min	Grey silty clay w/shell	3rd
120-130	120-130	60 min	Grey silty clay w/shell	3rd
130-140	130-140	40 min	Grey fine sand w/shell	2nd
140-150	140-150	40 min	Grey fine sand w/shell	2nd
150-160	150-160	30 min	Grey medium sand w/shell hash	3rd
160-170	160-170	10 min	Grey medium sand w/shell hash	2nd
170-180	170-180	10 min	Grey medium-fine sand w/shell	2nd
180-190	180-190	15 min	Grey fine sand with clay	2nd
190-200	190-200	20 min	Grey clay with shell	3rd

EAST COAST CONSTRUCTION CO. INC.
 P. O. BOX 5004
 JACKSONVILLE, N. C. 28540



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FILE FOLDER

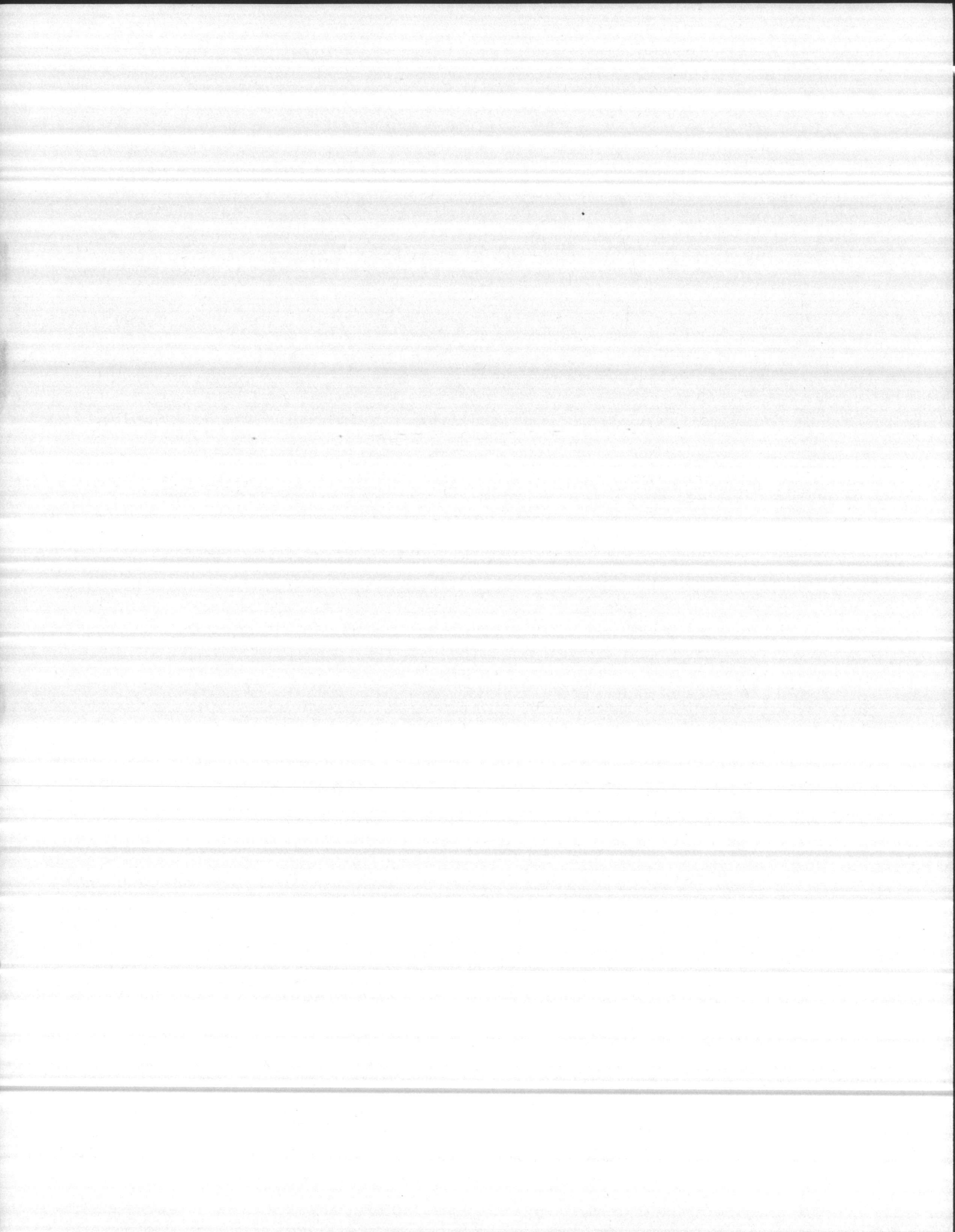
DESCRIPTION ON TAB:

T.T. 26 well #1

Outside/inside of actual folder did not contain hand written information

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***Scanned as next image**



Layne Pump No. 57176
size 8 type DRLC

Layne and Bowler inc, Memphis 8, Tenn.

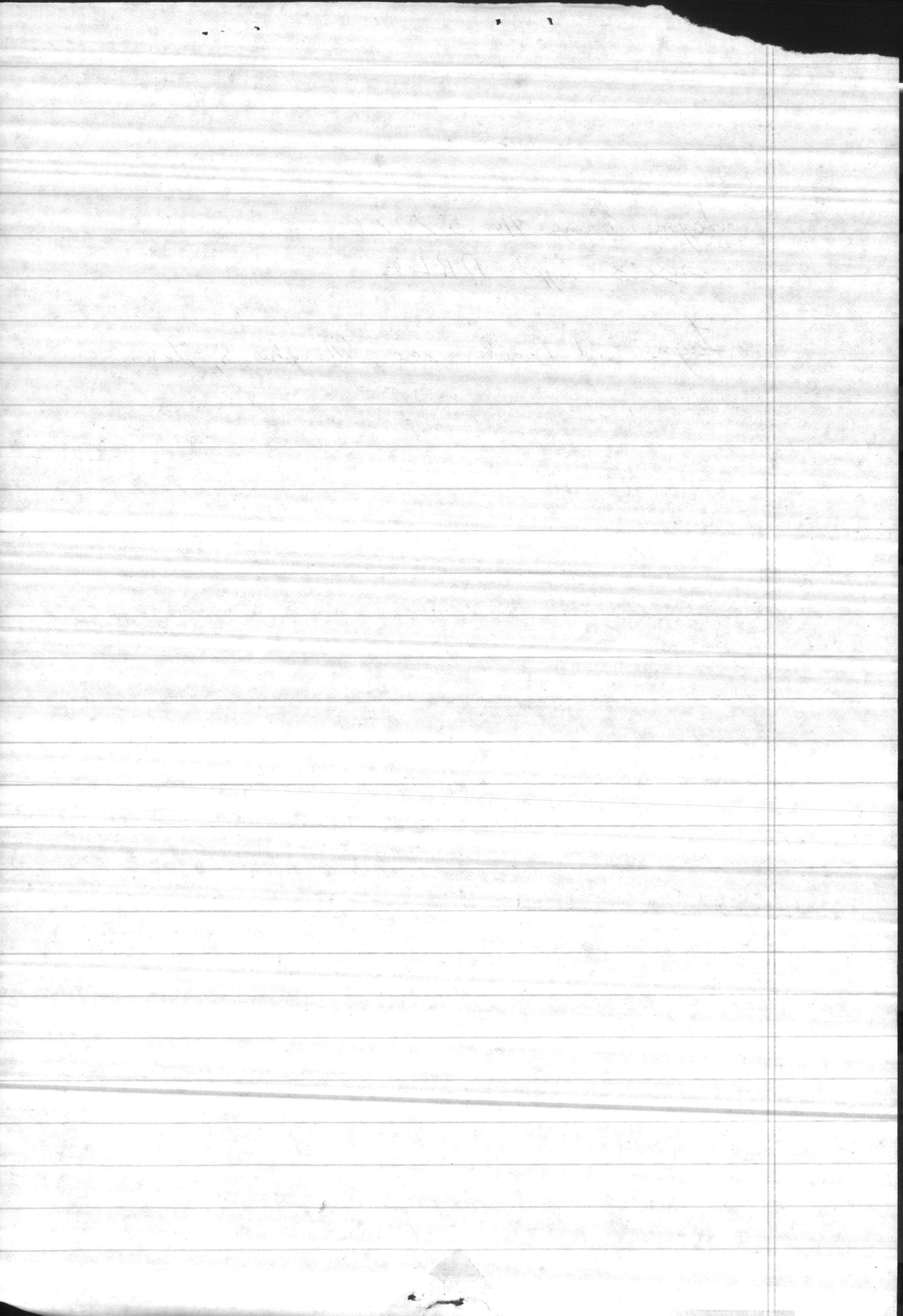
9-28-80

TI-26-

Lane + Bowler Discharge Head - Pump
Changed to Fairbanks Morse
Size - 8M - inch. Fig. 7000E, 4 Stage
200 G.P.M. at T.D.H of 120ft., 1735 R.P.M.
imp. Dice 5.44
Serial # T3FZ412461X - Oil Lube.

Well - 100' Deep
Static - 27 ft.
Air Line - 80'

Start up - Static - 43'
- P/L - 63'
DD - 20'



TT-26

LAYNE #57176

SIZE 5" 8 DRLC
COLUMN + SHAFT 80'

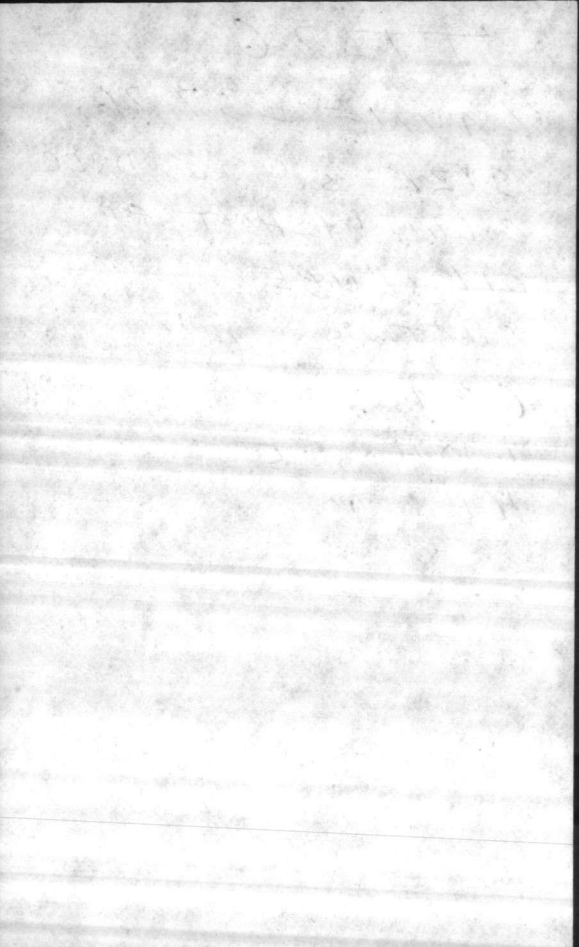
OIL LUBE

SUCTION 10'

GPM 200

TIDH 105'

HP 10



I Well at TARAWA TERRACE

40. Unit #1 - Pump, Turbine, DUAL DRIVE (Electric + Gasoline)

Well No. 1; Bldg. TT-26.

Name, Manufacturer and Address, Serial No.

All information

(a) Motor, Elec

II Well at TARAWA TERRACE

40. Unit #1 - Well No 1; Bldg TT-26

Depth, Pump setting, static, Pumping level, oil or Water lubrication, discharge pressure, Capacity, GPM.

(a) Pump, Turbine, Dual Drive (Electric + Gasoline)

Name, Manufacturer and Address, All information

(1) Motor, Electric

Name, Manufacturer and Address, etc.

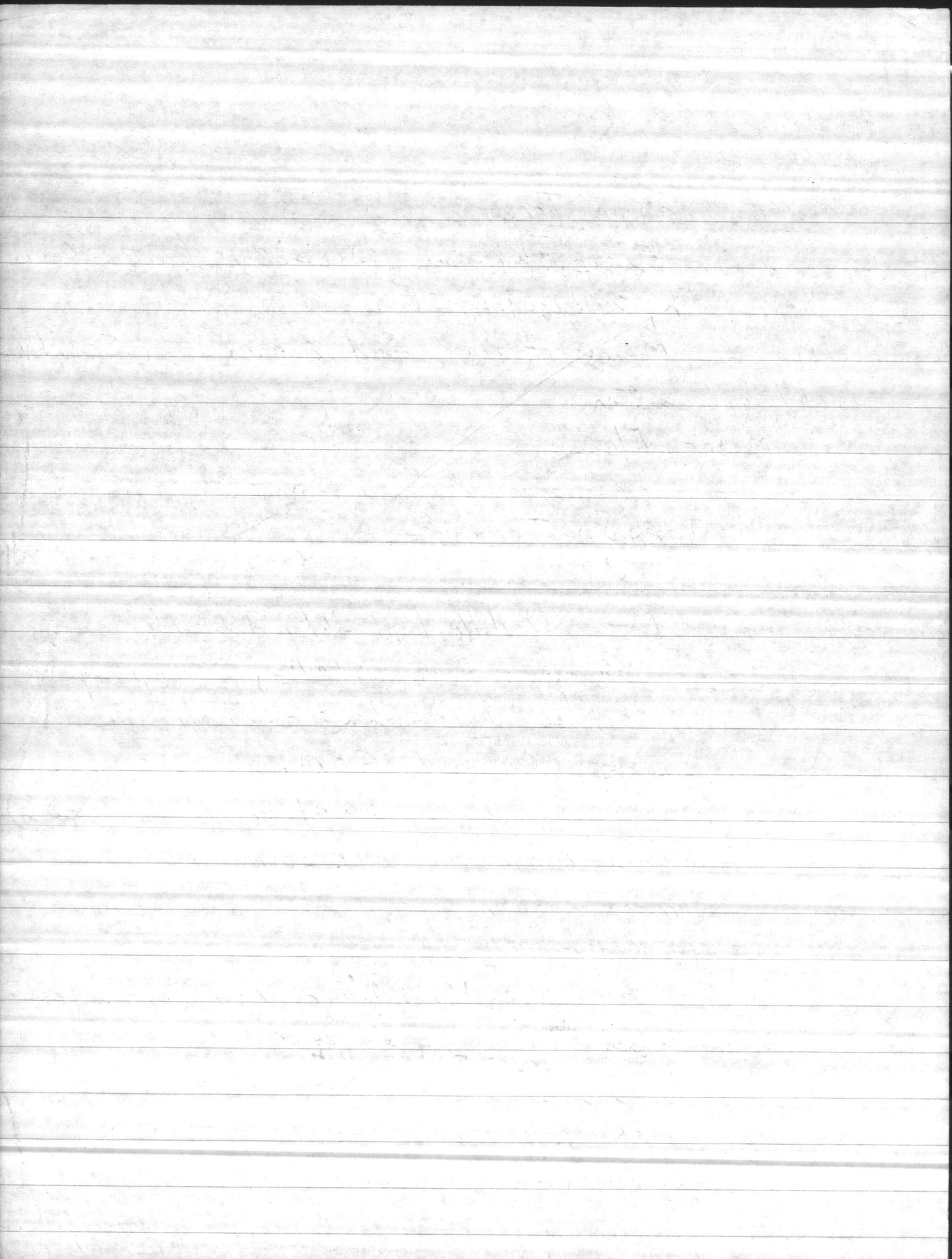
(aa) Switch, shutt/brak

(bb) Switch, starter

(cc) Resistance or Reset

(2) Motor, Gasoline

Name, Manufacturer and Address, etc.
level. Elec. starter or manual (crank)



U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF WATER DATA COORDINATION
INVENTORY OF HYDROLOGIC DATA STATIONS
QUALITY OF WATER

APPROVED.
Budget Bureau No. 42-R1485
Approval Expires June 30, 1968

1. AGENCY CODE MC	2. TYPE Q	3. LATITUDE 34 44 12² N	4. LONGITUDE 77 21 52 W	5.
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6. AGENCY STATION NO. TT26	7. STATION NAME TT38-1
--------------------------------------	----------------------------------

8. DRAINAGE BASIN CODE No. Letter 6 N	9. STATE CODE 32	10. COUNTY CODE 133	11. COUNTY NAME ONslow
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12. PERIOD OF RECORD Began 1960 Discontinued	Y <input type="checkbox"/> Continuous Interruption Exceeds 1 Year	13.	14.
--------------------------------------------------------	-------------------------------------------------------------------	-----	-----

15. SITE <input type="checkbox"/> 101 Stream <input type="checkbox"/> 102 Canal	<input type="checkbox"/> 103 Lake <input type="checkbox"/> 104 Reservoir <input type="checkbox"/> 105 Estuary	<input type="checkbox"/> 106 Spring <input checked="" type="checkbox"/> 107 Well <input type="checkbox"/> 110 Other
---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------

16. FREQUENCY OF MEASUREMENT <input type="checkbox"/> 201 Continuous Recorder <input type="checkbox"/> 202 Telemetered	<input type="checkbox"/> 203 Daily <input type="checkbox"/> 204 Weekly <input type="checkbox"/> 205 Monthly <input type="checkbox"/> 206 Quarterly	<input type="checkbox"/> 207 Seasonal <input type="checkbox"/> 208 Annual <input type="checkbox"/> 209 Other Periodic <input checked="" type="checkbox"/> 210 Occasional
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17. TYPES OF DATA AVAILABLE <i>Physical</i> <input type="checkbox"/> 311 Temperature <input type="checkbox"/> 312 Specific Conductance <input type="checkbox"/> 313 Turbidity <input type="checkbox"/> 314 Color <input type="checkbox"/> 315 Odor <input type="checkbox"/> 316 Radioactivity <input checked="" type="checkbox"/> 318 pH (lab) <input type="checkbox"/> 319 Eh <input type="checkbox"/> 320 Other	<i>Chemical</i> <input type="checkbox"/> 331 Dissolved solids <input checked="" type="checkbox"/> 332 Chlorides Only <input type="checkbox"/> 333 Nutrients (Nitrogen and phosphorus compounds) <input type="checkbox"/> 334 Common ions <input checked="" type="checkbox"/> 335 Hardness <input type="checkbox"/> 336 Radiochemical <input type="checkbox"/> 337 Dissolved oxygen <input type="checkbox"/> 338 Other Gases <input type="checkbox"/> 339 Other	<i>Organic</i> <input type="checkbox"/> 351 Pesticides (insecticides, herbicides, etc.) <input type="checkbox"/> 352 Synthetic detergents <input type="checkbox"/> 353 Other <i>Biologic</i> <input type="checkbox"/> 361 Coliforms <input type="checkbox"/> 362 Other Micro-organisms <input type="checkbox"/> 363 BOD <input type="checkbox"/> 364 Other <i>Sediment</i> <input type="checkbox"/> 371 Concentration <input type="checkbox"/> 372 Particle size <input type="checkbox"/> 373 Other
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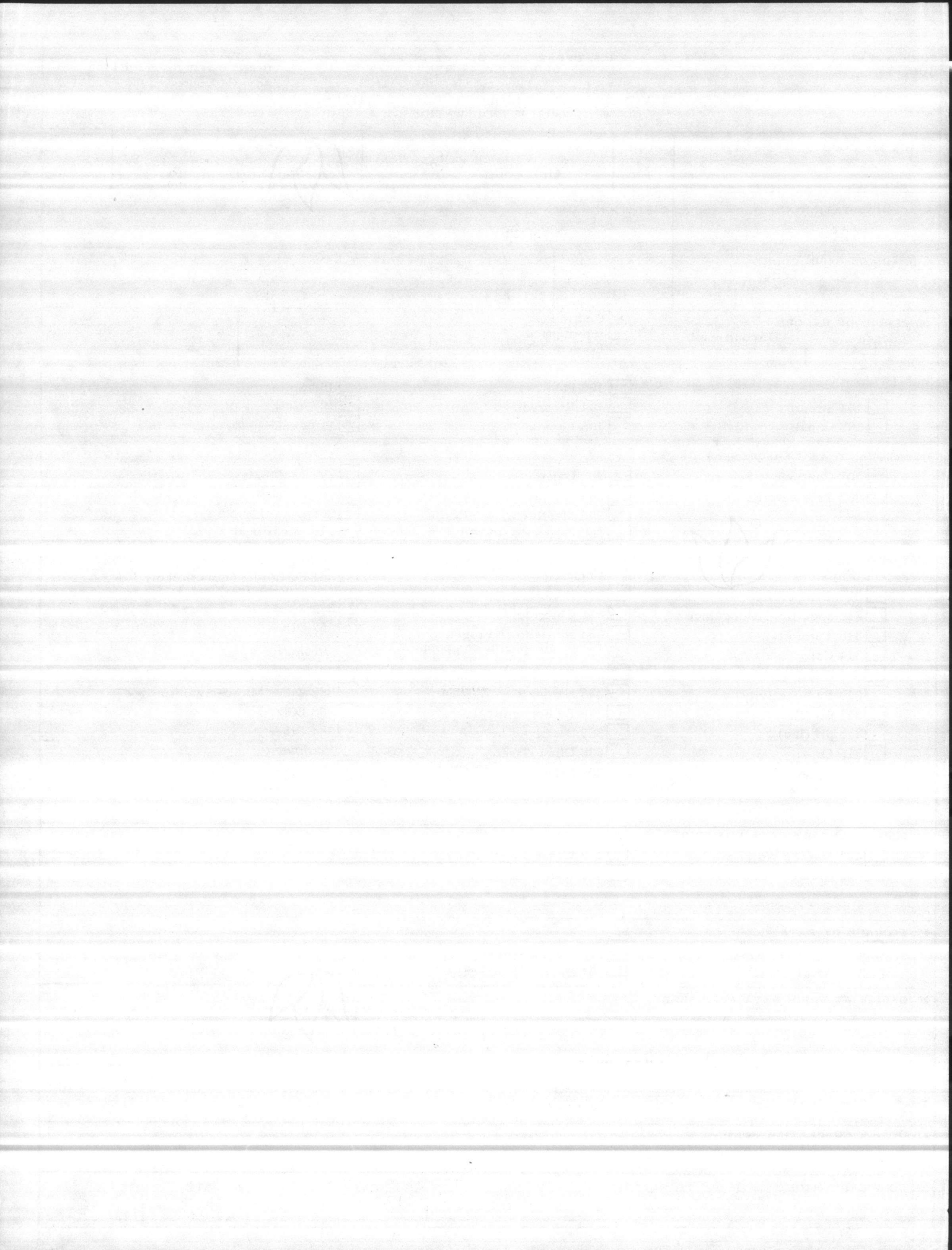
18. SUPPLEMENTARY DATA FOR SITE <input type="checkbox"/> 421 Surface Water Station <input type="checkbox"/> 422 Ground Water Station	<input type="checkbox"/> 423 Water Stage or Level <input checked="" type="checkbox"/> 424 Water discharge	<input type="checkbox"/> 425 Time of Travel <input type="checkbox"/> 426 Drainage Area
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19. STORAGE OF DATA <input type="checkbox"/> 501 Periodic Report <input type="checkbox"/> 502 Areal Report	<input checked="" type="checkbox"/> 503 Not Published <input type="checkbox"/> 504 Data on Punchcard	<input type="checkbox"/> 505 Data on Magnetic Tape <input type="checkbox"/> 506 Other
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20. OFFICE AT WHICH DATA AVAILABLE		
Office <u>BASE MAINTENANCE DEPARTMENT, UTILITIES DIVISION</u>		
Street No. <u>MARINE CORPS BASE</u>		
City, State, Zip <u>CAMP LEJEUNE, N. C. 28542</u>	City Code <u>0735</u>	

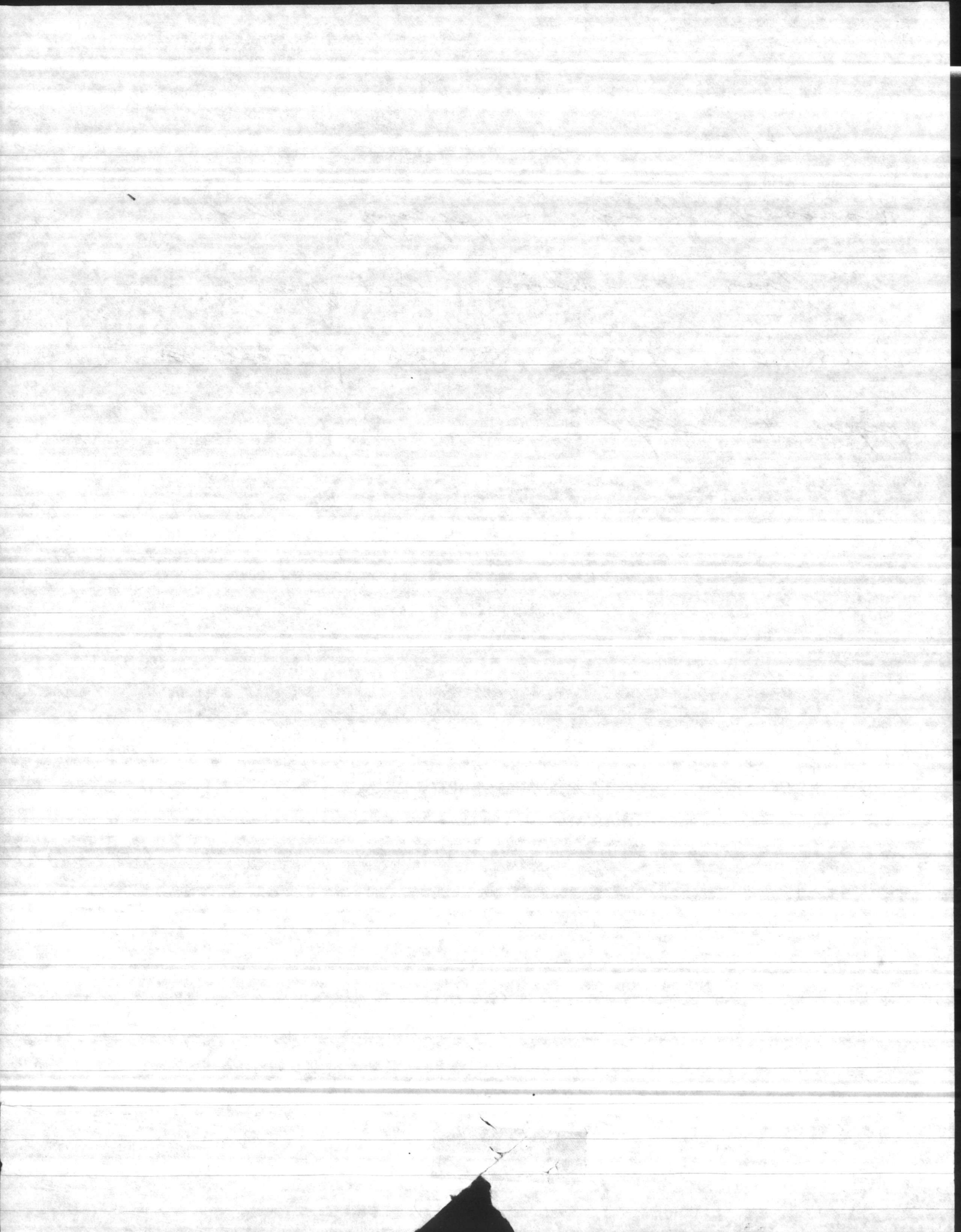
21. OFFICE COMPLETING FORM BASE MAINTENANCE DEPARTMENT

22. COMPILER'S NAME	23. DATE Month <u>09</u> Year <u>1966</u>
---------------------	----------------------------------------------



6-11-92

Removed pump + piping, shaft
in poor condition set pump
back in place - 20' of coleman
pipe + shaft.



TT26

DATE	LENGTH OF AIR LINE	STATIC LEVEL	PUMPING LEVEL	DRAW DOWN	DISCHARGE PRESSURE	CAP. PER FOOT OF DRAW DOWN	TIME
3-1-83	79'	33'	54	31	35	100	09.25
			63	30"	29	122	09.45
			68	35	26	133	10.00
			70	33	21	140	10.15

Left net at 26 PSI 133 GPM

REMARKS:

3-1-83 4 stage pump fairbanks more
 150 GPM @ 120, HD 4 stage
 5" COLUMN w/ 1" x 80' shaft 4" suct pipe
 7.5 HP motor 1800 RPM 60 HZ
 Vertical Turbine, water lub.

DEPTH OF
 WELL:
 WELINE
 ELEVATION:
 DATE
 INSTALLED:

Handwritten calculations and notes on lined paper. The page contains several columns of arithmetic, including addition and subtraction problems, and some larger numbers.

Top row calculations:

- 70 over 32 equals 38
- 70 over 38 equals 56
- 70 over 14 equals 5
- 52 over 19 equals 34
- 125 over 72 equals 53

Second row calculations:

- 125 over 87 equals 38
- 56 over 12 equals 4
- 125 over 12 equals 10
- 62 over 125 equals 106
- 125 over 66 equals 59

Third row calculations:

- 50 over 12 equals 48
- 125 over 60 equals 65
- 125 over 12 equals 10
- 62 over 63 equals 19
- 125 over 50 equals 75
- 78 over 18 equals 36
- 40 over 12 equals 3

Fourth row calculations:

- 125 over 19 equals 46
- 150 over 60 equals 9000
- 125 over 50 equals 75
- 125 over 65 equals 60
- 125 over 35 equals 90

Fifth row calculations:

- 125 over 37 equals 88
- 88 over 19 equals 69
- 9000 over 8 equals 72000
- 125 over 58 equals 67
- 125 over 60 equals 60
- 90 over 19 equals 91

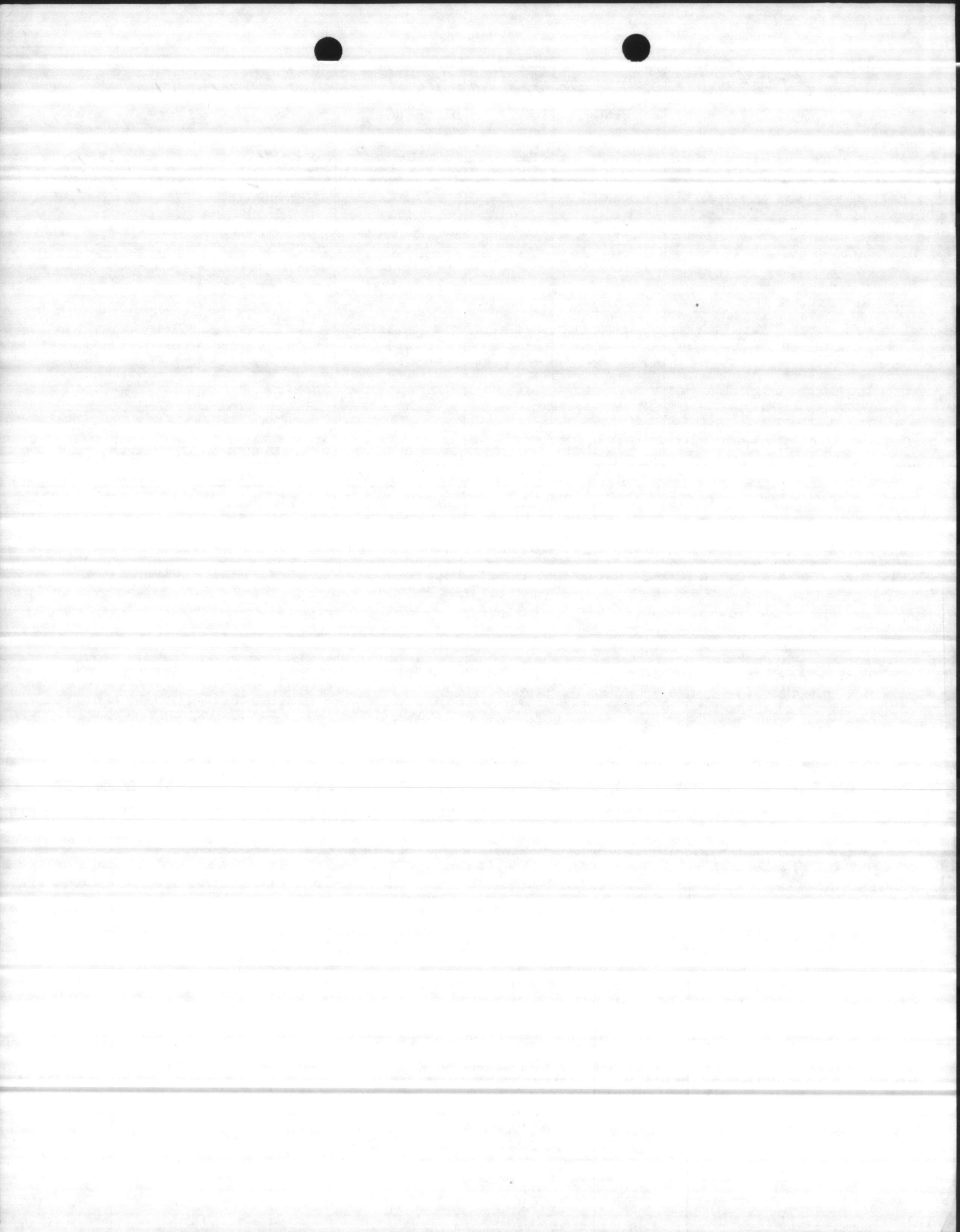
Sixth row calculations:

- 125 over 41 equals 84
- 84 over 19 equals 65
- 125 over 47 equals 78
- 125 over 53 equals 72
- 72 over 19 equals 53

Seventh row calculations:

- 125 over 44 equals 81
- 81 over 19 equals 62

TYPE PUMP	STAGE	SIZE	SN	TH	SHAFT SIZE
			88		
			49		





7