

88461



ENGINEERING DIVISION

150-02-20292/2 93

CENTRIFUGAL PUMP DATA SHEET

Alt. No. 80-701
Job No. 15-2-2

Process: BDP
Unit: Main Process Rack (02)
Service: Hot Water Recirculation
Pump Type: ☐ Horizontal ☐ Vertical
☒ Telling ☐ Telling ☐ Pump
Pump Mfr.: Goulds Pumps, Inc.

P. O. No. _____ Req. No. _____
Originator: USD Date _____
Revised By: _____ Rev. No. _____ Date _____
Size & Type: 3996MT, 4x6-13 No. Req. 2

OPERATING CONDITIONS

Medium: Hot Water
570 GPM at 46 Ft. Hd. Differential (Circulation)
_____ GPM at _____ Ft. Hd. Differential
NPSH: 72.4 Ft. Available at 570 GPM
Shut Off. Ft. Head: 56 P.T. 'T' Opr. 80 Max.
Disch. Press. PSIA 85.3 Sp. Gr. at P.T.: 0.97
Suct. Press. PSIA 65.4 Viscosity at P.T. CPS 1
Vapor Press. at P.T. PSIA 6.87

SHAFT SEALING

Mechanical Seal Type: Crane Type 8 0285110101 (316 SS)
Rotating Face Material: Carbon (Grade 51)
Stat. Face Material: 98% Ceramic
Other Wctd Parts: Nordel / 316 SS
Packing Type: _____ Size & No. Rings: _____
Lantern Ring Material: _____ Tube: _____
Stuffing Box Arrangements:
☐ External Flush Conn. ☐ Throat Push.
☐ Suction Flush Loop. ☐ Cyclone Sep.
☒ Discharge Flush Loop ☐ Cooler
Via Seal Bypass Tap

CONSTRUCTION

Case Split: Horizontal, Vertical
Support: XXXXXXXXXX XXXXXXXXXX Pipeline
XX, No. Size _____ Drain: Yes, No. Size 3/8"
Mech. Seal Flush Tap: Size 3/8"

PERFORMANCE (By Vendor)

Proposal Curve No. CDS 2536
No. Stages: 1 Design Eff. 73% H₇₃ 8.71
For Design Impeller:
Max. H₇₃ 10.0 Max. Head-Ft. 56
Max. Req'd. NPSH-Ft. _____ Min. Continuous GPM _____
Rotation Facing Coupling End CW
Water Cooling: NO
Bearings: _____ GPM
Stuffing Box: _____ GPM
Gland: _____ GPM
Max. Allow WP _____ PSIA at 'C'
Weights: Pump _____ Base _____
Motor, XXXXXX

Nozzles	Size	Rating	Facing	Position
Suction	6"	150lbs	Flat	Inline
Discharge	4"	150lbs	Flat	Inline

Impeller Type: Open
Diameter: Design 11" Max. 13"
Shaft Sleeve: XX, No. _____
Coupling Type: Falk Steelflex
Throat/Bearing Lubr: XXX Greased for life
Seal Bypass Tap: Size 1/2"
Stuffing Box Drain: Size 1/2"
b) Flush Gland

MATERIALS

Casing: D.I. Shaft Sleeve: _____
Impeller: D.I. Wear Rings: _____
Shaft: 316 SS Stuffing Box: D.I.
Inner Case Parts: D.I.
D.I. = Ductile Iron

Shop Tests	Req'd.	Witnessed
Running	No	
NPSH	No	
Hydrostatic. PSIA	C)	NO
Imp. Dyn. Bal.	NO	

DRIVER

MOTOR
Item No. _____ Purchased By: vendor
HP: 10 Mtd. By: Vendor
R and F Spec. No. 22-741
Control Station Mounted at Pump ☒ & Panel Board ☐
Guard for Drive - Std. No. 99-056
Motor to be high efficiency type.

ITEM NO. _____ Purchased By: _____
HP: _____ Mtd. By: _____
Mfr. & Type: _____
Inlet Steam, PSIA _____ Temp. F. _____
Exhaust: _____
Steam Rate, FL _____ LB/HP/HR
Bearings: _____ Lubr. _____

Nozzles	Size	ASA Rating	Facing	Position
Inlet				
Exhaust				

*Motor Brake Horsepower Shall Not Exceed 90% of Nameplate Horsepower For Impeller Design At Any Point On The Curve.
a) Vendor to install 316 SS seal flush loop tubing.
REMARKS: b) Vendor to provide vent tap on flush gland.
c) Hydrostatically test to manufacturer's standard.

GOULDS PUMPS, INC.

SENECA FALLS NEW YORK 13148

OUNS 222-5100

PAGE 1 OF 3 FACTORY ORDER 719850

INVOICE NO.

5-28-81 6-5-81

DATE SHIPPED

PART 3/M

TERRITORY

COMP. 3/M

TERMS: NET 30 DAYS

ON ASSEMBLY

X F.O.B. SENECA FALLS, N.Y. #2 SHOP

ORDER RECEIVED FROM:

SHIP WITH H719831 719832-854

APPROX. SCHEDULED SHIPPING DATE

H719855-857 719858-861

H719862 & 863 719684-875

6-19-81

NO PARTIAL (IF CHECKED)

TOMER'S P15-11049

ER NO. 11-24-80 TA

G.P. ORDER NUMBER 719850

00040-9466

ROHM & HAAS BAYPORT, INC.

BILL P.O. BOX 1330

TO LA PORTE, TEXAS 77571

DESTINATION & ROUTING LATER

SHIP TO

MARK VIA

P15-11049 ; REQ # E15-2-11049-1

COLLECT PREPAY/ ADD

BRANCH ORDER NO. MAP-02898 DATE ORDER REC'D IN ORDER DEPT. 2-2-81 DMC DATE ENTERED 2-5-81

QTY. ORD.	P.O. ITEM NO.	SERIAL NO.	UNIT LIST PRICE	QTY. SHIPPED	TOTAL LIST PRICE	NET AMOUNT
	450-02-20292/293	719C850-1-2				
	EQUIP. NO.					
	SERVICE HOT WATER RECIRCULATION					

2	MODEL NO.	SIZE	ROT.	CONST.			
	3996MT	4X6-13	RH	DI			
	G.P.M.	T.N.H.	LIQUID		TEMP.	SP. GR.	EFF.
	570	46	HOT WATER			1.0	76 %
	IMPELLER	11 white out	DIA. DRAWING	101-499	PATT.	54611	NPSHR 8
	IMPELLER	10	DIA. DRAWING		PATT.		SUCT. PRESS
	MOTOR	M.P.	R.P.M.	PHASE	CYCLES	VOLT	FRAME
	RELIANCE		1150	3	60	230/460	TC
	MOTOR ENCLOSURE				DWG	CODE	
	TEFC/XE 1.15/F PER MTR SPEC						
	MOTOR BY	WILL NOT COME HERE		DATA			
	FACTORY	WILL COME HERE X ON		M18168		CN FILE	

WITH FOLLOWING ADDITIONS, MODIFICATIONS AND/OR REQUIREMENTS.

1. FALK COUPLING
2. CPLG. GUARD
3. SHAFT SLEEVE LESS
4. STAINLESS SHAFT 316SS
5. MECHANICAL SEAL PG #2
6. 3/8" CASING DRAIN
7. FURNISH W/MONTHLY PROGRESS REPORTS
8. GREASE FOR LIFE BRGS
9. MOTOR SUPPORT

TESTS	WIT.	NON-WIT.
PERFORMANCE		
NPSH		
NOISE		
VIBRATION		
X HYDROSTATIC		

STANDARD ENG'G DATA

INCLUDES

DIM PRINTS ☐ PRINTS

COS (CURVE) ☐

SECTIONALS (TYPICAL) ☐

SEAL DNGS (IF APPLIC) ☐

MANUALS ☐

QTY MOTOR PRINTS ☐

QTY BILLS OF MAT'L (APPROX) ☐

WE HEREBY CERTIFY THAT THESE GOODS WERE PRODUCED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF SECTIONS 8, 7, & 12 OF THE FAIR LABOR STANDARDS ACT, AS AMENDED AND OF REGULATIONS AND ORDERS OF THE U.S. DEPT. OF LABOR ISSUED UNDER SEC. 14 THEREOF AND THE PRICES CHARGED ARE WITHIN APPLICABLE FEDERAL CEILING PRICE REGULATION AND ORDERS.

NO. OF INVOICES MAILING AND OTHER INSTRUCTIONS

DRIVER DATE HERE

A867-CM

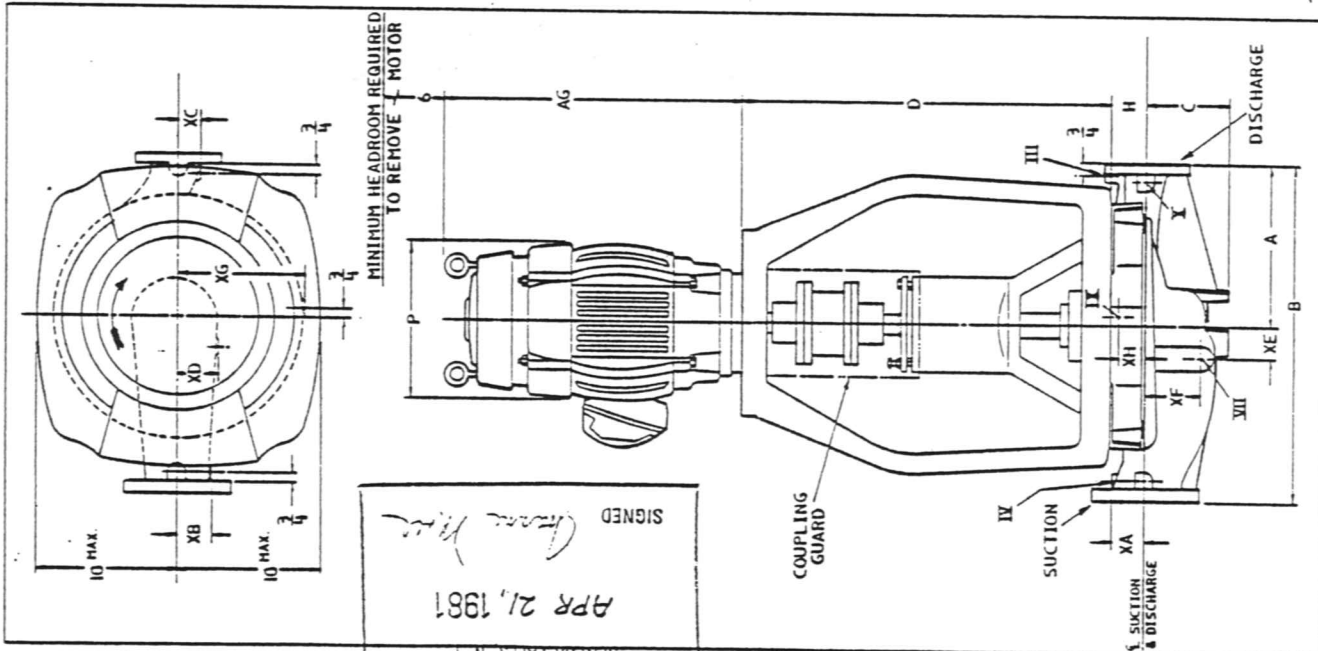
DRIVER HERE

ACKNOWLEDGMENT

We thank you for your order which we have entered exactly as shown. Please check specification and if incorrect notify us immediately using our factory order number from the upper right hand corner. Your order has been accepted subject to our verification of price and subject to the terms and conditions on back hereof.

GOULDS PUMPS, INC.
ENGINEERED PRODUCTS DIVISION
SENECA FALLS, N.Y. 13148

(R+H spec calls for 10 hp motor) 256 ?



Approved for Construction Purposes
GOULDS PUMPS, INC.
SENECA FALLS, N.Y.

APR 21, 1981

SIGNED

MINIMUM HEADROOM REQUIRED
TO REMOVE MOTOR

DIMENSIONS DETERMINED BY PUMP

DISCH. SIZE	SUCT. SIZE	CASING CLASS	A	B	C	H	XA	XB	XC	XD	XE	XF	XG	XH	XL	XM	WT.
1-1/2	2	10	9-3/16	18 7/8	5-1/8	2-1/4	1-1/2	1-3/4	1-3/8	2-1/8	1-5/8	3	7-1/8	1-3/4	3-1/4	4-3/4	369
1-1/2	3	10	9-3/16	18 7/8	5	2-3/8	2-1/8	2-1/4	1-3/8	2-1/2	1-5/8	3-1/2	7-1/8	1-3/4	3-1/2	4-3/4	379
2	3	10	9-1/2	20	5-1/4	2-1/2	2	2-1/4	1-5/8	2-3/4	1-1/2	3-1/2	7-1/8	2	3-1/2	5	388
3	4	10	11-1/2	25	6	2-5/8	2-5/8	2-3/4	2-1/8	3-1/4	2-1/2	4-1/2	7-1/8	2-1/8	3-3/8	5-1/4	427
1-1/2	3	13	11-1/2	24	5-5/8	2-3/8	2-1/4	2-3/8	1-1/2	2-1/2	1-3/4	3-3/4	8-5/8	1-7/8	3-3/8	4-7/8	460
2	3	13	11-1/2	24	5-3/4	2-1/2	2-1/4	2-3/8	1-3/4	2-3/8	2-1/4	3-7/8	8-5/8	2	3-1/2	5	495
3	4	13	13	28	6-7/8	2-5/8	2-7/8	2-7/8	2-1/4	3-3/8	3	5	8-5/8	2-1/8	3-5/8	5-1/4	508
4	6	13	14	30	8-1/2	2-3/4	3-7/8	3-7/8	2-3/4	4-1/8	3-3/4	6-3/4	8-5/8	2-1/4	3-3/4	5-1/4	615

DIMENSIONS DETERMINED BY MOTOR

NEMA FRAME	DISCH. SIZE	AG	P	WT.
143 TC 23-1/8	12	8	60	
145 TC 23-1/8	13	8	65	
182 TC 24-3/4	15	10	105	
184 TC 24-3/4	16	10	105	
213 TC 24-3/4	19	11	185	
215 TC 24-3/4	19	11	185	
254 TC 24-3/4	24	13	320	
256 TC 24-3/4	24	13	320	
284 TC 24-3/4	24	15	350	
286 TC 24-3/4	25	15	440	
324 TC 26-3/4	27	17	540	
326 TC 26-3/4	28	17	600	
364 TC 26-3/4	30	19	834	
366 TC 26-3/4	31	19	910	
404 TC 26-3/4	33	22	1120	
406 TC 26-3/4	33	22	1120	
408 TC 26-3/4	35	22	1235	

FLANGE DIMENSIONS

I.D.	O.D.	B.C.	THK.	NO. & SIZE OF HOLES
150 LB. FLANGE - FLAT FACE				
1-1/2	5	3-7/8	11/16	4-5/8
2	6	4-3/4	3/4	4-3/4
3	7-1/2	6	15/16	4-3/4
4	9	7-1/2	15/16	8-3/4
6	11	9-1/2	1	8-7/8
300 LB. FLANGE - FLAT FACE				
1-1/2	6-1/8	4-1/2	13/16	4-7/8
2	6-1/2	5	7/8	8-3/4
3	8-1/4	6-5/8	1-1/8	8-7/8
4	10	7-7/8	1-1/4	8-7/8
6	12-1/2	10-5/8	1-7/16	12-7/8

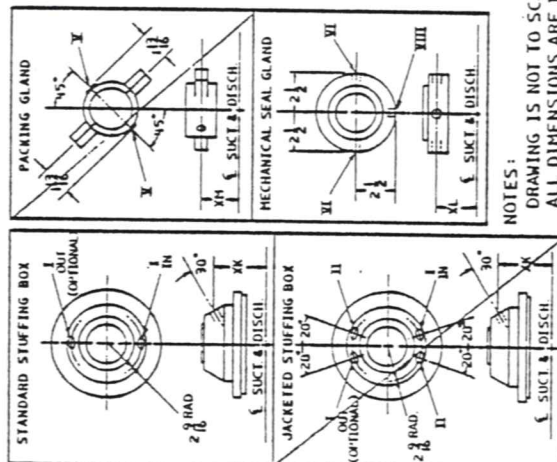
OPTIONS FURNISHED WHEN CHECKED

STUFFING BOX COVER	☐ STANDARD
	☐ JACKETED
PACKING WITH QUENCH GLAND	☐
MECHANICAL SEAL WITH FLUSH GLAND	☒
MECHANICAL SEAL WITH VENT AND DRAIN	☐
MECHANICAL SEAL WITH PLAIN GLAND	☐
COUPLING GUARD	☒ BY GOULDS
	☐ BY OTHERS

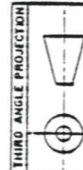
TAPPED OPENINGS

NO	SIZE	QTY	PURPOSE	FURNISHED YES	NO
I	3/8	1	LANTERN RING OR MECH. SEAL FLUSH	X	
II	3/8	2	STUFFING BOX JACKET CONNECTIONS	X	
III	3/8	1	DISCHARGE GAGE CONNECTION	X	
IV	3/8	1	SUCKER GAGE CONNECTION	X	
V	1/4	2	QUENCH CONN FOR PACKED BOX	X	
VI	1/2	2	VENT AND DRAIN FOR MECH. SEAL	X	
VII	1/2	1	CASING DRAIN	X	
VIII	1/2	1	FLUSH CONN FOR MECH. SEAL	X	
IX	1/2	1	STUFFING BOX DRAIN	X	
X	1/2	1	SEAL BYPASS CONNECTION	X	

MOTORS MAY BE SUPPLIED WITH "V" DESIGNATION. THIS DESIGNATION DOES NOT AFFECT DIMENSIONS OR MOUNTING.



NOTES:
DRAWING IS NOT TO SCALE.
ALL DIMENSIONS ARE IN INCHES.
WEIGHTS ARE APPROXIMATE.



GOULDS PUMPS INC., SENECA FALLS, N.Y., U.S.A.
GOULDS SERIAL NO.: 7190850-1-2
CUSTOMER: ROHM & HAAS CORPORATION, INC.
CUSTOMER P.O. NO.: P15-11049
ITEM NO.: 450-02-20292/293
SERVICE: HOT WATER RECIRCULATION

ISSUE #1 FRAME WAS 254TC 3-30-81 L.C.
ISSUE #2 FRAME WAS 215TC 4-21-81 L.C.

ENG. FORM NO. 1395
DATE: 6-20-80 ME.DRM

DWG. NO. 115-78

REV 4

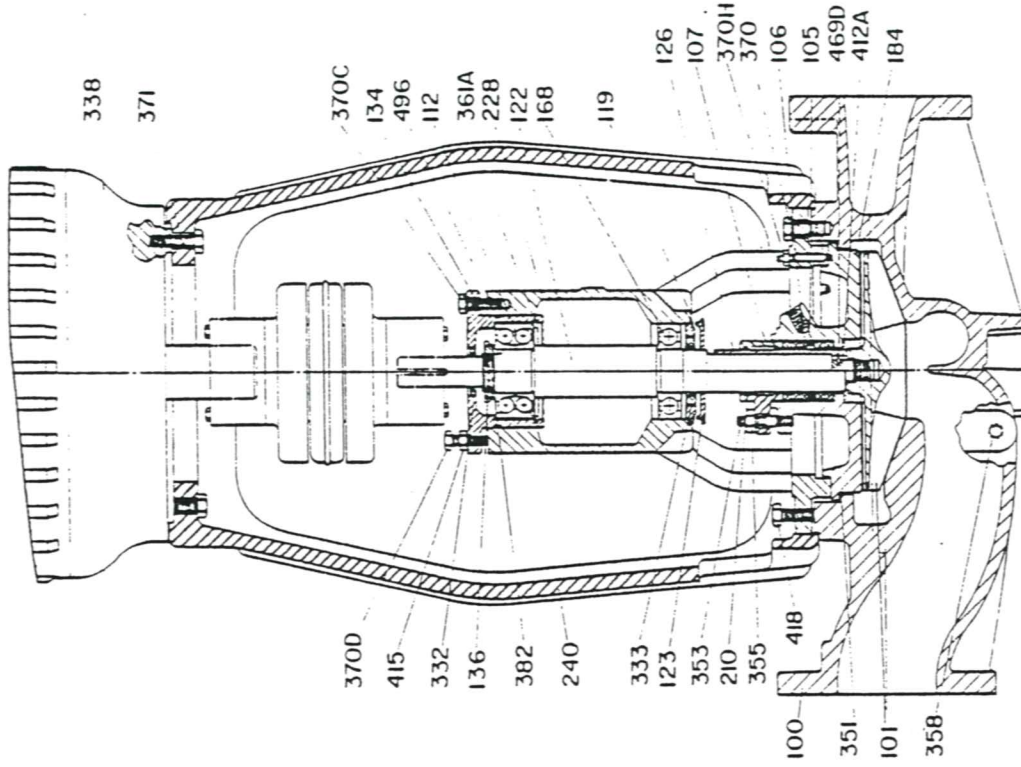
BILL OF MATERIAL

ITEM NO	QTY PER PUMP	PART NAME	MATERIAL
100	1	CASING	D/
101	1	IMPELLER	D/
105	1	LANTERN RING	GL/FLD TEFLON
106	1SET	STUFFING BOX PACKING	ASBESTOS
107	1	GLAND QUENCH	316SS
112	1	BALL BEARING - OTBD	STEEL
119	1	BEARING END COVER - INBD	STEEL
122	1	SHAFT	316 SS
123	1	DEFLECTOR	GL/FLD NYLON
126	1	SHAFT SLEEVE	CI
134	1	BEARING HOUSING	STEEL
136	1	BEARING LOCKNUT	STEEL
168	1	BALL BEARING - INBD	D/
184	1	STUFFING BOX COVER	CI
228	1	FRAME	CI
240	1	MOTOR SUPPORT	CI
332	1	GREASE SEAL	STEEL
333	1	GREASE SEAL	STEEL
338	1	MOTOR	ASBESTOS
351	1	CASING GASKET	304SS
353	2	GLAND STUD	316SS
355	2	HEX NUT - GLAND STUD	316SS
358	1	PLUG - DRAIN	STEEL
361A	1	RING RING - BRG HSG	STEEL
370	8	H CAP SCREW-CASE	304SS
370C	6	H TAP BOLT - BRG HSG	STEEL
370D	3	H TAP BOLT - IMP ADJ	STEEL
370H	2	STUD-COVER-ADPTR	304SS
371	4	H CAP SCREW-MOTOR TO SPT	STEEL
382	1	BEARING LOCKWASHER	STEEL
412A	1	O-RING IMPELLER	TEFLON
415	3	JAW NUT - BRG HSG	STEEL
418	2	H CAP SCREW-FR JACK	STEEL
469D	1	ROLL PIN-SLEEVE	420SS
496	1	O-RING BRG HSG	BRN-N

NOTE: IF UNIT IS FURNISHED WITH MECHANICAL SEAL, DELETE ITEMS 105, 106, 107, & 210 AND REFER TO SEAL DRAWING NO. CF-5P-37428

ATTACHED

TO FOLLOW



SECTIONAL ASSEMBLY



GOULDS PUMPS, INC.
ENGINEERED PRODUCTS DIVISION
SHEPARD AVENUE NEW YORK 17403

GOULDS SERIAL NO 719C850-1-2
CUSTOMER ROHM & HAAS BAYPORT, INC
CUSTOMER P.O. NO P15-11049
EQUIP OR ITEM NO 450-02-20292/293
SERVICE HOT WATER RECIRCULATION

GRSE FOR LIFE
MODEL 3996 MT

DRAWN BY	CKD BY	DATE	SCALE
VAN	VAJ	9-15-78	NONE
MODEL	DRAWING	REV	
3996 MT	SA996MGL	0	

REV(A) WAS D-1750-472

(A1) REMOVED(A2) ADDED 3-17-73

PRINT IS PROPERTY OF CRANE PACKING CO. SUBJECT TO RETURN UPON DEMAND. TITLE TO SAME NEVER SOLD OR TRANSFERRED FOR ANY REASON. ALL RIGHTS TO INVENTION RESERVED.

CRANE PACKING COMPANY

6400 W. OAKTON ST.
MORTON GROVE, ILL.

DR. M.A.
CH. *PHIL*
AP. *PHIL*
DATE: 9-3-70

SCALE: NONE

FOR DIMENSIONAL DWG. SEE CF-SP-37428

JOHN CRANE TYPE BIT
13/4 D. SHAFT SEAL
FOR MODEL 3996 GROUP "MT"
GOULDS PUMPS, INCORPORATED.
SENECA FALLS, NEW YORK.

ITEM	PART NUMBER	MAT'L CODE	PART NAME	QUAN-TITY	MATERIAL	REC. SPARE PARTS
1	**		SEAT	1	HIGH PURITY CERAMIC	X
2	1866 6		SEAT RING	1	CRANE LAST	X
3	A89 1750 23		WASHER	1	CARBON	X
4	1866 2		"O" RING	1	CRANE LAST	X
5	A9T 1750 57		RETAINER	1	SS	
6	**		SPRING	8	SS	X
7	A9T 1750 59		DISC.	1	SS	
8	A9 1625 158		SNAP RING	1	SS	
9	BY CUST.		GASKET	1	ASBESTOS	
10	BY CUST.		SLEEVE			
11						
12						
13	1/4 - 20 x 1/4 LG 1125 - 2004		SET SCREW	4	SS	
14	BY CUST		GLAND PLATE		316SS	
15						
16						
17						
18						
19						
20						
21						
22						
23						

SEAL ASS'Y. NO. A8T-1750-144

SEAT ASS'Y. NO.

SPEC. NO.

INSTRUCTIONS: ☐ NONE ☐ REQUIRED

** D-1751-375(MACH) (A)
D-1750-276 (CERAMIC) (A1) (A2)

** 1033 (304 SS)
2047 (316 SS)
2248 (CARP#20)

1065 (MONEL)
1027 (HAST B)
1963 (HAST C)

OPERATING CONDITIONS:
LIQUID: HOT WATER
SPECIFIC GRAVITY: 1.0
TEMP °F
PRESS SUCT
SPEED 1150 R.P.M.
PRESS DISH.

UNIT REFERENCE.
CUST. PO.# P15-11049
PROJECT # ROHM & HAAS BAYPORT, INC.
ITEM # 450-02-20292/293
EQUIPMENT #
PUMP SERIAL # 719C850-1-2
PUMP MODEL # 3996 MT (A2)
PUMP STUFFING BOX #
SHOP ORDER # 719850

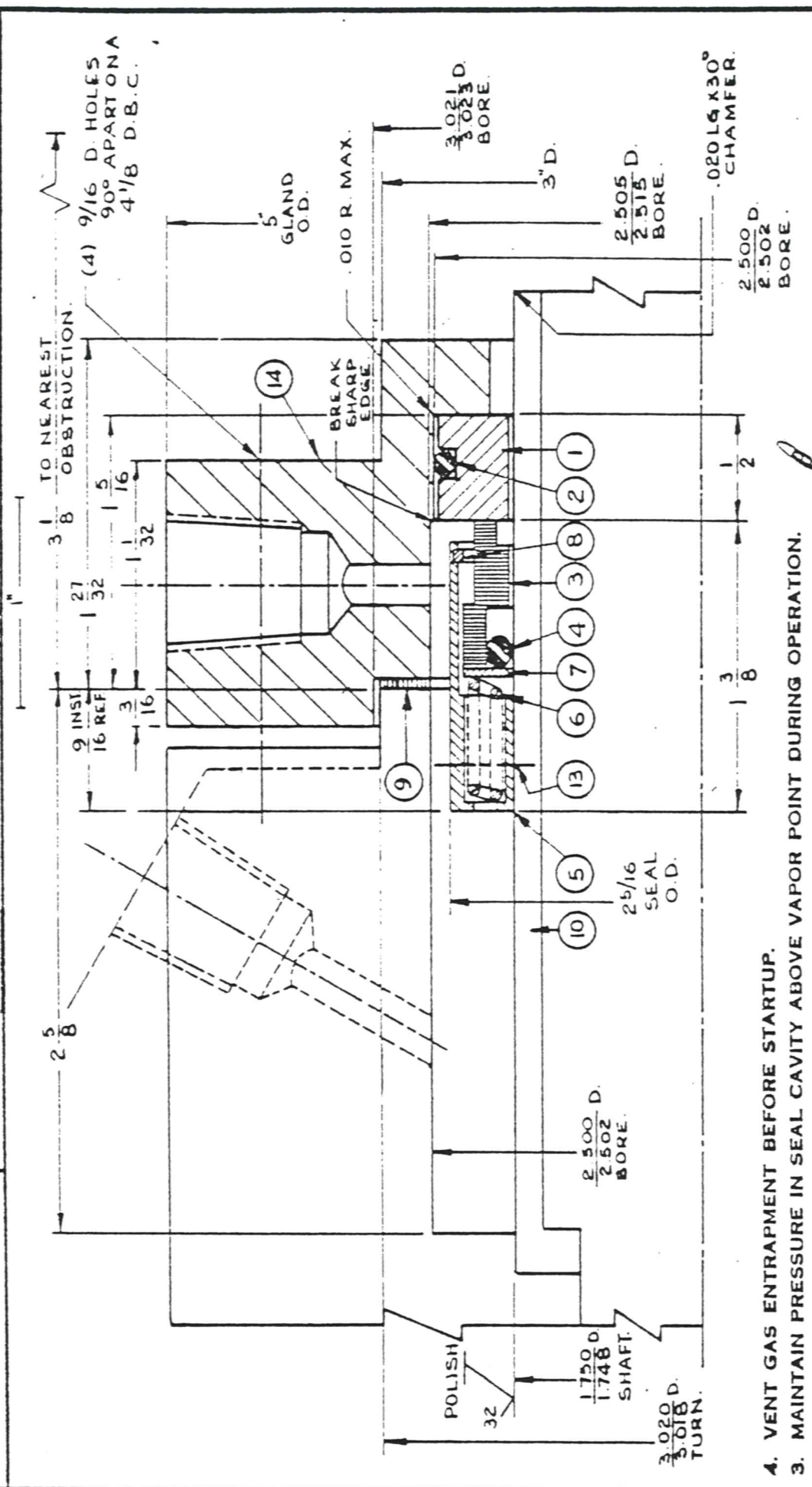
B/P. REFERENCE.
DWG # CF-SP-15564 REV: D DTD 7-30-70 & CF-SP-30205 REV: A DTD 9-12-68 BY C.P.CO.

DWG. No. SP-CF-37428

SP-CF-37428

MASTER (A2) 73-01221

REV.	PRINT IS PROPERTY OF CRANE PACKING Co. SUBJECT TO RETURN UPON DEMAND. TITLE TO SAME NEVER SOLD OR TRANSFERRED FOR ANY REASON. ALL RIGHTS TO INVENTION RESERVED.	DR. M. A.	FOR PARTS LIST SEE SP-CF-37428
SERIAL No.: 719C850-1-2	 CRANE PACKING COMPANY 6450 W. OAKTON ST. MORTON GROVE, ILL.	CH. 12/11-1	
CUST.: ROHM & HAAS BAYPORT, INC.		APP. 12/11-1	
P.O.# P15-11049		DATE: 9-3-70	
ITEM # 450-02-20292/293		SCALE: 1 1/2 : 1	
SERVICE: HOT WATER RECIRCULATION			



4. VENT GAS ENTRAPMENT BEFORE STARTUP.
3. MAINTAIN PRESSURE IN SEAL CAVITY ABOVE VAPOR POINT DURING OPERATION.
2. CLEAN SEAL FACES BEFORE FINAL ASSEMBLY.
1. LUBRICATE ITEMS # 2 & 4 BEFORE INSTALLING SEAL.

DWG. No. CF-SP-37428

CT-SP-37428

MASTER

RELIANCE

ELECTRIC COMPANY

MOTOR DIVISION, CLEVELAND, OHIO 44117, U.S.A.

DATA TRANSMITTAL AND CERTIFICATION

CUSTOMER ORDER NO. M18168		DATE 02/12/81		REQ. NO. S.O. NO. 3MA499717		REFER TO THIS NUMBER IN ALL CORRESPONDENCE
SOLD TO: GOULDS-ENG PRODUCTS DIV 240 FALL SENECA FALLS N Y						
SHIP TO: GOULDS PUMPS INC 240 FALL STREET SENECA FALLS NY		SAME AS "SOLD TO" UNLESS SHOWN 13148		DATA PROVIDED WITH THIS TRANSMITTAL AND CERTIFICATION IS: ☐ FOR CUSTOMER APPROVAL BY DATE: _____ Return of approval prints by the above date is required to assure scheduled shipment, delay in return and/or revision of approval prints may require shipment reschedule. Return approved D/S to data source. ☒ FINAL, APPROVED FOR CONSTRUCTION OR INSTALLATION. ☐ PRELIMINARY, ENGINEERING IS COMPLETED. ☐ REVISED, SUPERSEDES DATA PREVIOUSLY ISSUED. ☐ SEE REMARKS.		
DATA SOURCE		TRANSMITTAL AND CERTIFICATION ISSUED BY: RHW DATE 5/11/81 CK BY _____ DATE _____ ATHENS PLANT COLLINS INDUSTRIAL DRIVE ATHENS, GEORGIA 30601				
MOTOR OR GEN. DATA		ITEM USED FOR USERS PLANT 3-3 CENTR PUMP QTY. FRAME 00EC 10 HP SERV. FA TYPE R.P.M. 2 256TC 1.15 PB 1200 PH/HZ/VOLTS-WINDING DUTY ENCLOSURE AMB./INSL. PWR. CODE SEE BELOW CONT TEFC-YEX 40 F BEARINGS MOUNTING & METHOD OF DRIVE RAILS OR BASE MODEL NUMBER BALL W6 /CPD ROTAT FROM OPP. DR. END D-C FIELD EXCITATION DOUBLE SHAFT EXTEN. CH				
E-CER DATA		REDUCER STYLE CLASS FRAME RATIO OUTPUT RPM ASSEMBLY CH				
BRAKE DATA		BRAKE TYPE SIZE RATING DUTY P.O. FT/LB				
DATA FOR CON-TROL		D-C MOTOR ARMATURE CURRENT: _____ AMPS FIELD CHARACTERISTICS PER CURVE: _____ F ₁ -f ₂ _____ MAX. AMPS _____ RPM F ₁₁ -f ₂₂ _____ MAX. AMPS _____ RPM F ₃ -f ₄ _____ MAX. AMPS _____ RPM A-C MOTOR INFORMATION FOR SELECTION OF STARTER HEATERS: CODE: H LOCKED AMPS: _____ F.L. CURRENT: 24.3/12.4 AMPS.				

SPCL. IN-STAL-LATION FEAT. AND MISC. DATA

ADDITIONAL MOTOR OR GEN DATA:
 PHASE: 3 HERTZ: 60 VOLTS: 230/ 460
 LD LOC - STD
 FR CONST RB

SPECIAL MARKS:
 719850

SPECIAL FEATURES:
 90 DEG C RISE AT 1.15 SERVICE FACTOR
 WITH DRIP CVOER

CERTIFIED DRAWINGS & DATA:

DATE: MOD.NO: 1 CERT D/S TO CUST ATTN
 DATE: MOD.NO: JCANNE MOLL 1 TO 24201 ASAP

GOULDS SER. NO. **719C850-1-2**
 CUSTOMER **ROHM & HAAS BAYPORT, INC.**
 P.O. NO. **P15-11049**
 ITEM NO. **450-02-20292/293**
 SERVICE **HOT WATER CIRCULATION**

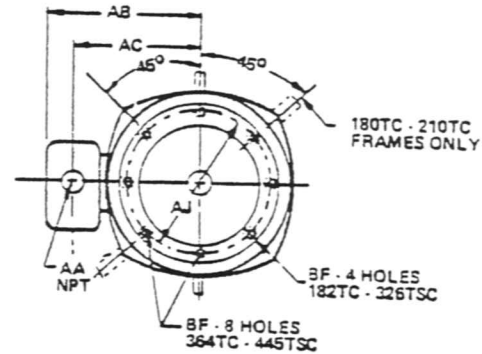
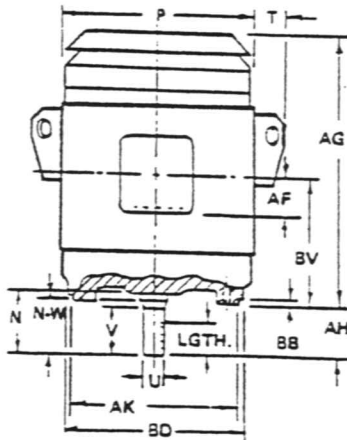
DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION
CAST IRON CONSTRUCTION

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: NEMA "C" FACE - FOOTLESS
VERTICAL - SHAFT DOWN

COOLING: FAN-COOLED

FRAMES 180TC THRU 440TSC



DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

FRAME	P	AA	AB	AC	AF	AJ	AK (3)	BB	BD	BF	TAP DEPTH (MIN)	T
182TC - 184TC	9.50	3/4	7.28	5.88	1.94	7.25	8.500	.25	9.00	1/2 - 13	.75	1.44
213TC - 215TC	10.50	1	9.25	7.25	2.50	7.25	8.500	.25	9.00	1/2 - 13	.75	1.44
254TC - 256TC	13.88	1-1/4	10.19	8.19	2.50	7.25	8.500	.25	9.00	1/2 - 13	.75	2.25
284TC - 286TSC	15.50	1-1/2	12.00	9.56	3.00	9.00	10.500	.25	11.25	1/2 - 13	.75	2.25
324TC - 326TSC	17.75	2	14.69	10.94	3.62	11.00	12.500	.25	14.00	5/8 - 11	.94	2.25
364TC - 366TSC	20.50	3	17.93	13.75	4.12	11.00	12.500	.25	14.00	5/8 - 11	.94	2.25
404TC - 406TSC	22.62	3	19.19	15.00	4.12	11.00	12.500	.25	13.25	5/8 - 11	.94	2.50
444TC - 446TSC	25.50	3	22.12	17.37	6.00	14.00	16.000	.25	16.50	5/8 - 11	.94	2.50

(1)

FRAME	AG	AH	BV	SHAFT AND KEY						WEIGHT (LBS.)
				N	N-W	U (2)	V	LENGTH	SQ.	
182TC	14.06	2.62	5.88	2.94	2.75	1.1250	2.50	1.78	.250	65
184TC	15.06	2.62	6.38	2.94	2.75	1.1250	2.50	1.78	.250	85
213TC	17.00	3.12	7.25	3.56	3.38	1.3750	3.12	2.41	.312	120
215TC	18.50	3.12	8.00	3.56	3.38	1.3750	3.12	2.41	.312	140
254TC	21.25	3.75	9.12	4.25	4.00	1.625	3.75	2.91	.375	200
256TC	23.00	3.75	10.00	4.25	4.00	1.625	3.75	2.91	.375	230
284TC	23.38	4.38	9.75	4.88	4.62	1.875	4.38	3.28	.500	280
286TSC	23.38	3.00	9.75	3.50	3.25	1.625	3.00	1.91	.375	278
286TC	24.88	4.38	10.50	4.88	4.62	1.875	4.38	3.28	.500	330
286TSC	24.88	3.00	10.50	3.50	3.25	1.625	3.00	1.91	.375	328
324TC	26.31	5.00	10.75	5.50	5.25	2.125	5.00	3.91	.500	430
324TSC	26.31	3.50	10.75	4.00	3.75	1.875	3.50	2.03	.500	427
326TC	27.81	5.00	11.50	5.50	5.25	2.125	5.00	3.91	.500	480
326TSC	27.81	3.50	11.50	4.00	3.75	1.875	3.50	2.03	.500	477
364TC	30.25	5.62	12.25	6.12	5.88	2.375	5.62	4.28	.625	650
364TSC	30.25	3.50	12.25	4.00	3.75	1.875	3.50	2.03	.500	644
366TC	30.25	5.62	12.25	6.12	5.88	2.375	5.62	4.28	.625	700
366TSC	30.25	3.50	12.25	4.00	3.75	1.875	3.50	2.03	.500	694
404TC	33.82	7.00	13.75	7.62	7.25	2.875	7.00	5.65	.750	975
404TSC	33.82	4.00	13.75	4.62	4.25	2.125	4.00	2.78	.500	975
406TC	33.82	7.00	13.75	7.62	7.25	2.875	7.00	5.65	.750	1100
406TSC	33.82	4.00	13.75	4.62	4.25	2.125	4.00	2.78	.500	1100
444TC	38.88	8.25	16.00	8.94	8.50	3.375	8.25	6.91	.875	1250
444TSC	38.88	4.50	16.00	5.19	4.75	2.375	4.50	3.03	.625	1250
446TC	38.88	8.25	16.00	8.94	8.50	3.375	8.25	6.91	.875	1500
446TSC	38.88	4.50	16.00	5.19	4.75	2.375	4.50	3.03	.625	1500

(1)

- (1) SPECIAL DIMENSIONS ON THIS LINE
(2) "U" VARIES UP TO 1.6250 DIA. + .0000, - .0005
1.625 DIA. AND LARGER + .000, - .001
(3) "AK" VARIES 180TC - 286TSC INCL. + .000, - .003
324TC - 445TSC INCL. + .000, - .005
FACE RUNOUT AND ECCENTRICITY 180TC - 286TSC INCL. .004 MAX. T.I.R.
324TC - 445TSC INCL. .007 MAX. T.I.R.

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED.

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STD. SHAFT EXTENSION IS .002 T.I.R. UP TO AND INCLUDING 1.625 DIA. AND .003 T.I.R. ABOVE 1.625 TO 5 INCH DIA.

FRAME- _____ TYPE- _____ CERTIFIED FOR- _____
ORDER- _____ ITEM- _____ HP- _____ RPM- _____ PH- _____ HZ- _____ VOLTS- _____
RELIANCE SALES ORDER- _____ APPROVED BY- _____ DATE- _____

**RELIANCE
ELECTRIC**
CLEVELAND, OHIO 44117 U.S.A.

DR BY [Signature]
CK BY [Signature]
APP BY [Signature]
DATE 10-10-77

**DIMENSION
SHEET**
SHEET 1 OF 2

602531-940
ISSUE DATE NOV. 24, 1980