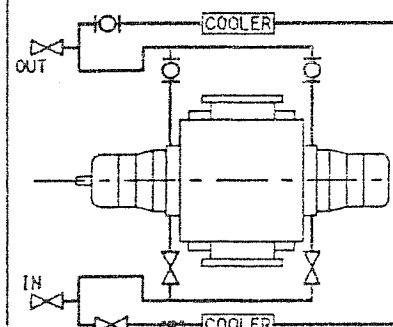


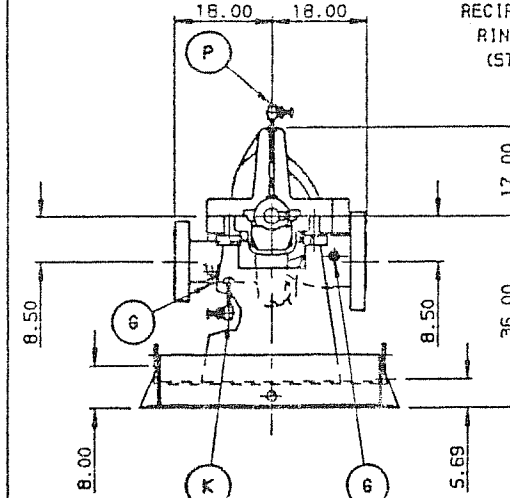
LEGEND		PIPE TAP SIZE
▲ PIPE PLUG	● PIPED BY BINGHAM	■ PROTECTIVE CAP
A COOLING HEADER - INLET	● 3/4	
B COOLING HEADER - OUTLET	● 3/4	
C BEARING HOUSING OIL - INLET D.E.	● 1/2	
D BEARING HOUSING OIL - OUTLET D.E.	● 1-1/2	
E BEARING HOUSING OIL - INLET N.D.E.	● 1/2	
F BEARING HOUSING OIL - OUTLET N.D.E.	● 1-1/2	
G PRESSURE GAGE CONNECTION	▲ 1/4	
H STFGBX COOLING - OUTLET	● 1/2	
I STFGBX COOLING - INLET	● 1/2	
J OIL DRAIN	▲ 1/2	
K PUMP DRAIN - WITH VALVE	● 1/2	
L BEARING BRACKET DRAIN	● 1-1/2	
M FLUSHING LIQUID	● 1/2	
N	-	(A)
O OIL INSPECTION HOLE COVER	■	
P PUMP VENT - WITH VALVE	● 1/2	
Q PUMPING RING DISCHARGE	● 1/2	
R BASE DRAIN	● 1"	(A)
S GLAND VENT & DRAIN	▲ 1/2	
T COOLING WATER INLET (LUBE SYSTEM)	▲ 3/4	(D)
U COOLING WATER OUTLET (LUBE SYSTEM)	▲ 3/4	(D)

FORCE IN. (LB.)				
	F _x	F _y	F _z	F _r
SUCTION	1700	1900	1700	2100
DISCHARGE	1600	1700	1600	1900

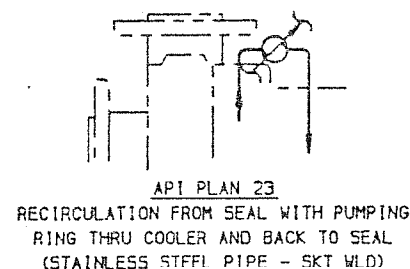
MOMENTS IN (FT-LB.)				
	M _x	M _y	M _z	M _r
SUCTION	4250	4250	4500	5000
DISCHARGE	2700	2700	2900	3250



API PLAN J
COOLING TO STUFFING BOX JACKET
WITH PARALLEL FLOW TO COOLER
(CARBON STEEL THREADED PIPE)



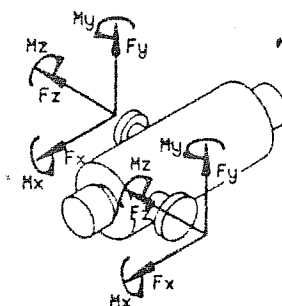
NOTE - MINIMUM FLOW BY-PASS
AN UNOBSTRUCTED BY-PASS MUST BE PROVIDED
FROM THIS DISCHARGE TO THE PRIMARY SUCTION SOURCE
TO PERMIT A FLOW OF 400 GPM MINIMUM, CUSTOMER TO
PROVIDE FLOW SENSITIVE VALVE TO CLOSE BY-PASS
LINE AT DESIGN CAPACITY



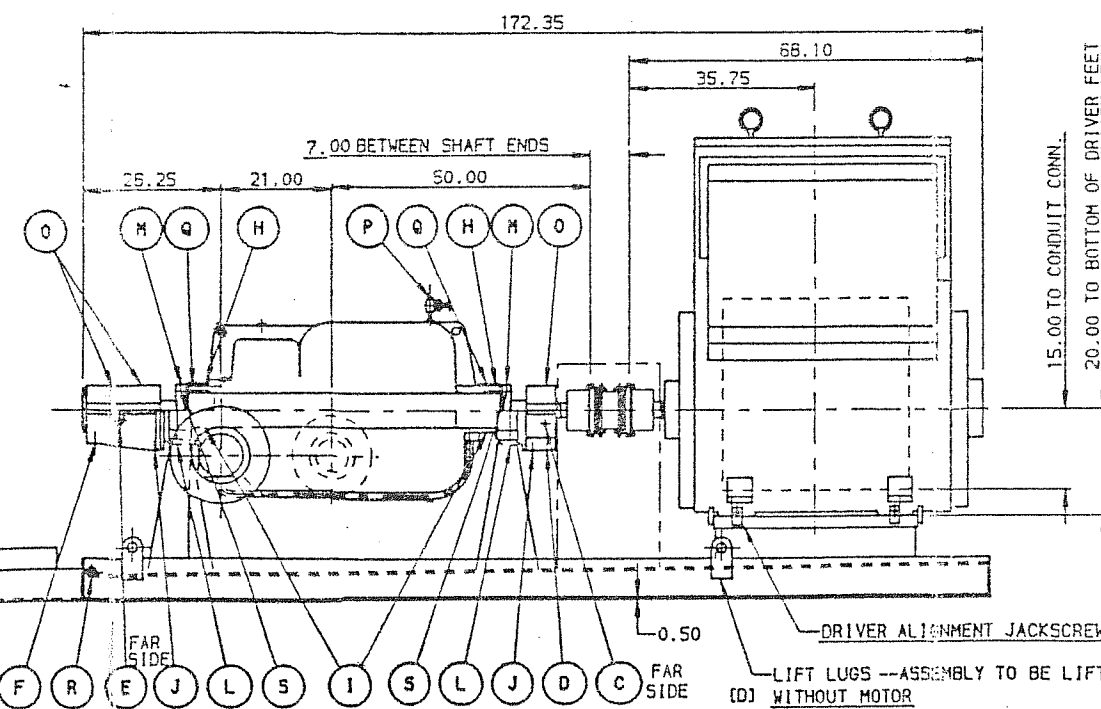
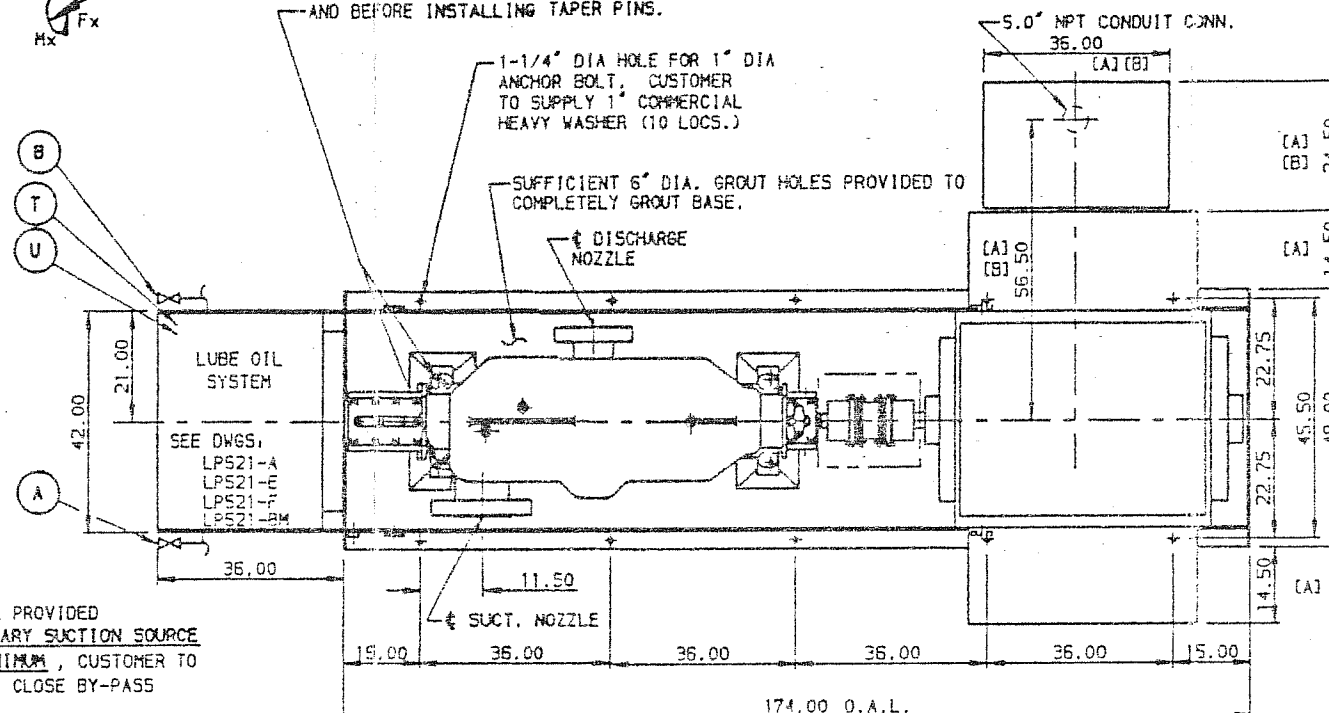
API PLAN 23
RECIRCULATION FROM SEAL WITH PUMPING
RING THRU COOLER AND BACK TO SEAL
(STAINLESS STEEL PIPE - SKT WLD)



LUBE OIL RESERVOIR



NOTE:
WITH BASE GROUTED TO FOUNDATION AND PUMP FINAL ALIGNED TO
DRIVER, POSITION ALIGNING KEYS USING .002" THICK SHIM BETWEEN
KEY AND FOOT. TIGHTEN BOLT, THEN DRILL AND REAM ALIGNING KEY
TO BASE PAD FOR TAPER PINS. REMOVE .002 SHIM AFTER REAMING
AND BEFORE INSTALLING TAPER PINS.



NOTE:

LUBE OIL SYTEM BY LUBE-POWER, INC.
MANIFOLD PIPING CONSTRUCTED OF S.S.
SOCKET WELD SUPPLY WITH C.S. SOCKET
WELD RETURN FOR PUMP.
(DETAILS TO FOLLOW)

REV	REVISION DESCRIPTION	INIT	APPD	DATE	ECN	D-10378-05
D	ADDED LIFT LUGS & NOTE	MAR	MSC	10-JAN-90	3379-06	

REFERENCE DRAWINGS

B-10376-15	API PLAN 23
B-10376-16	API PLAN J
-	-
-	-
-	-
-	-

UNIT DATA

PUMP SPECIFICATIONS

SIZE and TYPE, 6 X 8 X 11D MSD
NO. STAGES, 7 RPM, 3560
ROTATION, CCW (AS VIEWED FROM DRIVER)
DISCHARGE FLG, 6" CLASS 900 ANSI RF
SUCTION FLG, 8" CLASS 900 ANSI RF
MECH SEAL, JOHN CRANE
TYPE, 8B1 W/PUMPING RING CODE:XF1D1
PACKING,
NO. RINGS, SIZE,
ASSEMBLY,

COUPLING

	TYPE, FALK G32	SIZE, 1025G
(B)	END FLOAT LIMITED TO 0.19"	
	GUARD, BY SULZER BINGHAM (GALV.)	

DRIVER SPECIFICATIONS

MOTOR SIEMENS ALLIS
FURNISHED BY, BINGHAM
FRAME, 3020
HP, 1750 SPEED, 3560 RPM
4000 VOLT, 3 PHASE, 60 CYCLE
DIMEN. PRINT, 53-904-584-443

WEIGHTS

PUMP, 7400
BASE, 2400
DRIVER, 9100 LUBE SYSTEM, 975 LBS
TOTAL, 18,900 LBS

CUSTOMER DATA

SERVICE	BOILER FEEDWATER
ITEM NO,	SEE TABLE
PROP NO,	-
PUMP SO NO,	SEE TABLE

UNLESS OTHERWISE SPECIFIED DIMENSIONS, INCH			THIRD ANGLE PROJECTION
LINEAR, .X = ±.25 (G)	.XX = ±.12 (3)		
ANGULAR, X = ±1°	.X = ±.5°		
DIMENSIONS IN PARENTESIS ARE IN, MM			

**SULZER BINGHAM
PUMPS INC**

CAUTION!
CAREFULLY CHECK ALIGNMENT BEFORE STARTING UNIT.
ALL HOLES IN FLANGES STRADDLE CENTERLINES.
UNIT SHOULD BE RELIEVED OF EXCESS PIPING STRAINS.

CUSTOMER ITEM NO'S.					
SERIAL NO.	PUMP TAG No.	MTR TAG No.	PUMP-AUX LUBE	MTR-AUX LUBE PUMP	PUMP-LUBE OIL
10376	03-4-6010-540	03-4-6011-551	03-4-6012-540	03-4-6013-551	03-4-6004-540
10377	03-4-6015-540	03-4-6016-551	03-4-6017-540	03-4-6018-551	03-4-6008-540

CERTIFIED FOR:

■ INSTALLATION-FINAL
■ PRELIMINARY-NOZZLE AND MOUNTING DIMENSIONS ONLY
□ PRELIMINARY - FOR REVIEW ONLY

DR.	APPD	DATE	ECN
CAP	SC	1-SEP-89	3379-02
RWP	MC	04-AUG-89	-

GENERAL ARRANGEMENT

SCALE 1/24

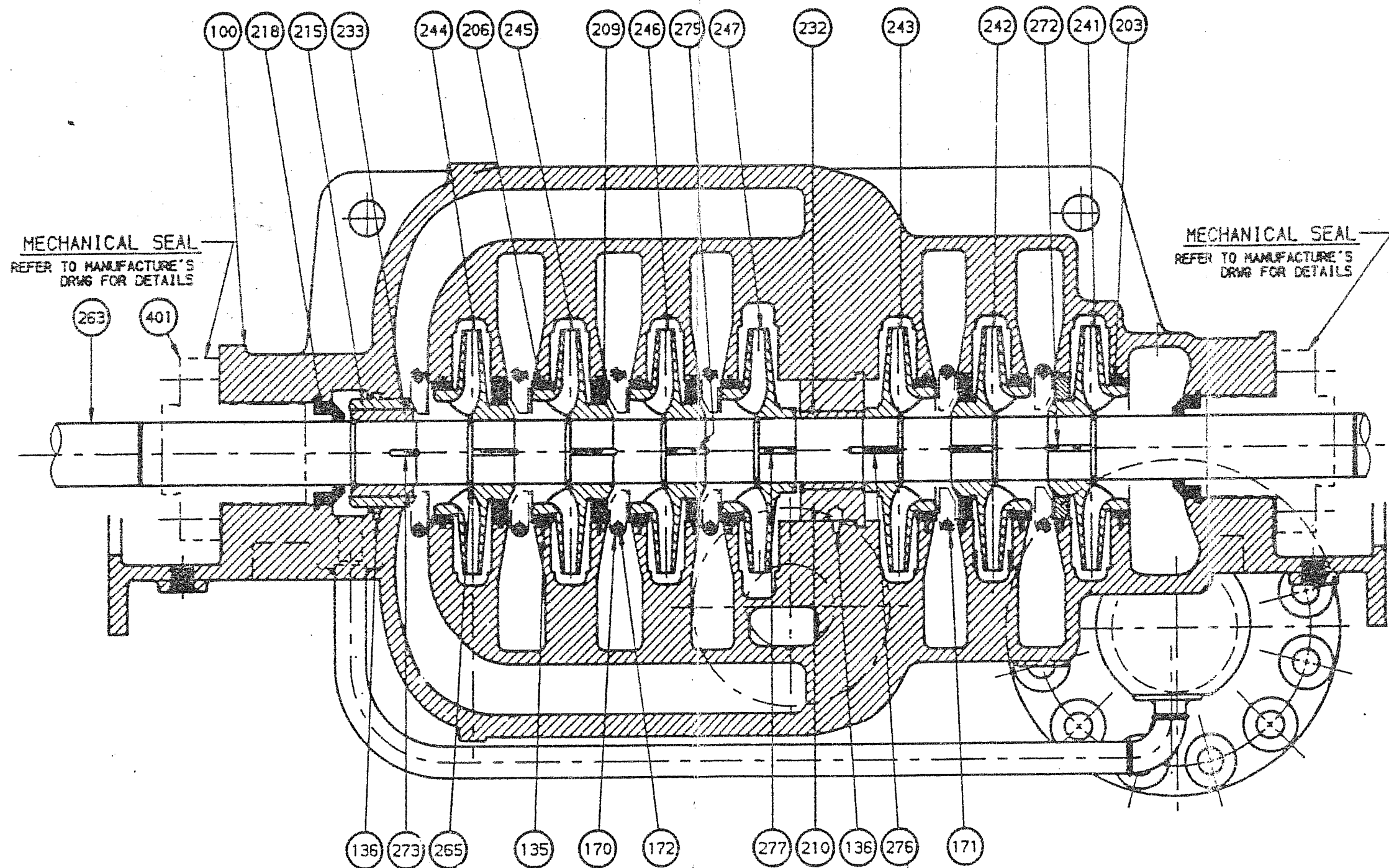
REF

D-10378-05

REV
CAO

B44705

123 CASE GASKET (not shown)



7 STAGE-SINGLE SUCTION DOUGLE VOLUTE PUMP TYPE MSD

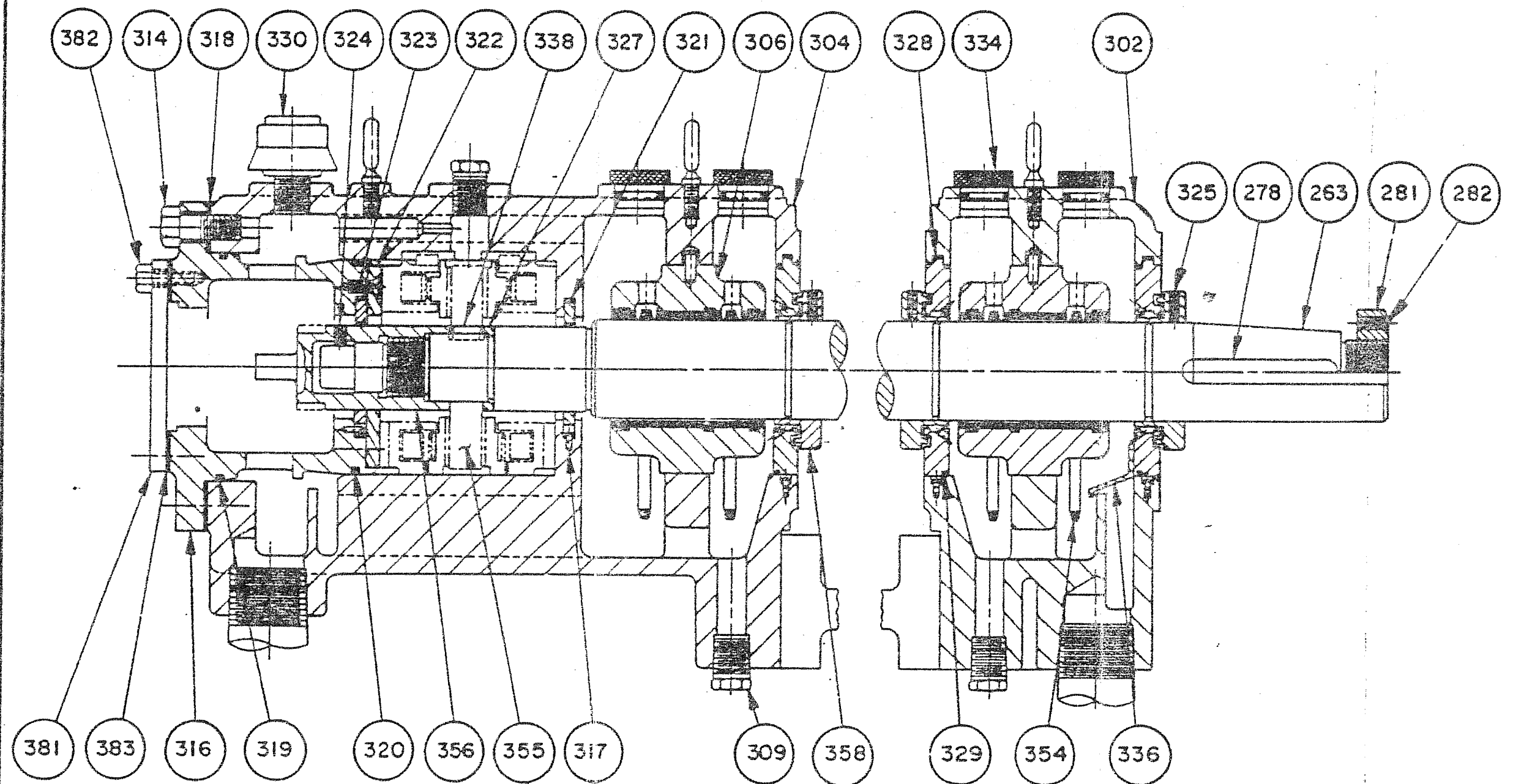
WITH INTEGRAL RINGS

**SULZER BINGHAM
PUMPS INC**

SECTIONAL DRAWING
SULZER BINGHAM TYPE "MSD"

B44705

REV
—
CAD



THRUST BEARING - REFER TO THE
SECTION OF YOUR INSTRUCTION
MANUAL FOR SERVICE AND PARTS
INFORMATION

Bingham

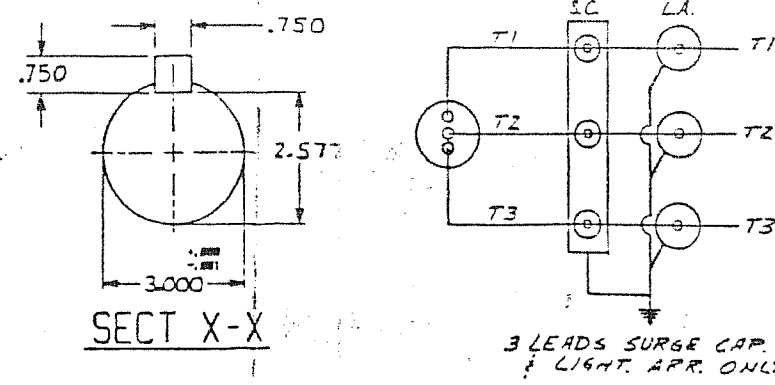
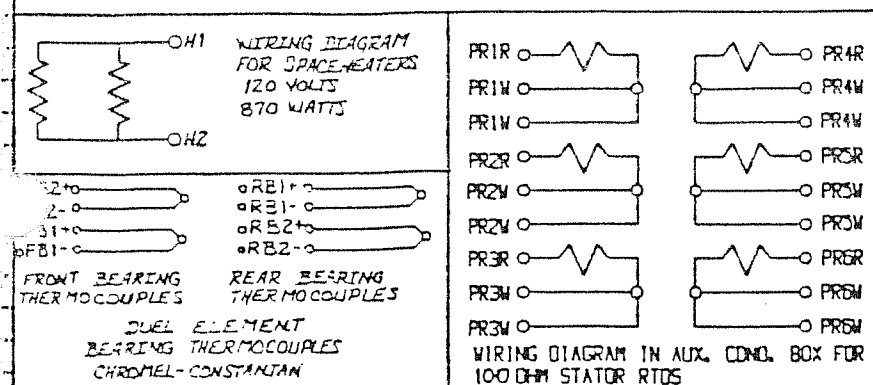
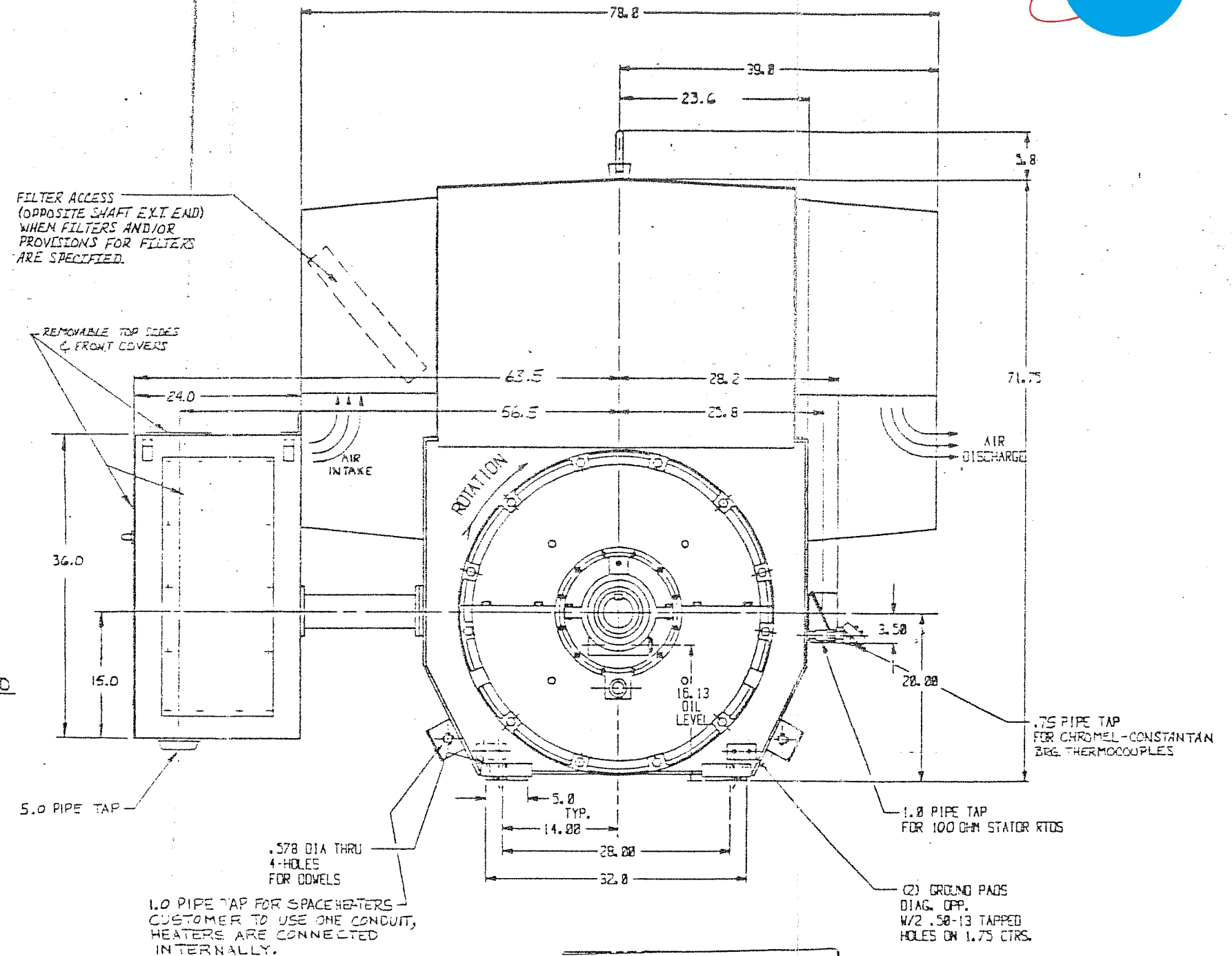
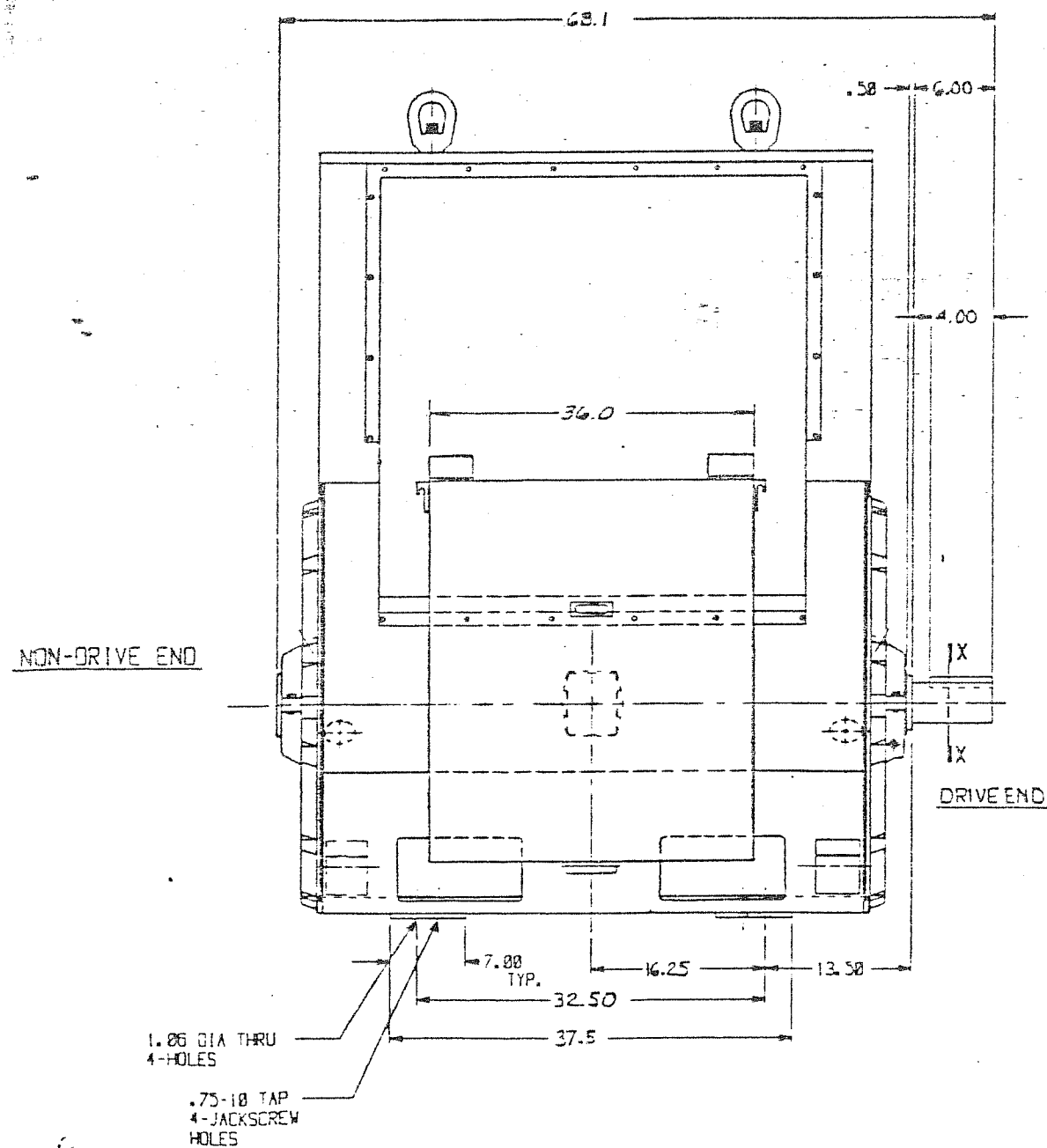
BEARING ASSEMBLY
WITH PIVOT SHOE THRUST BEARING

B-40982

- NOTES:
- 1) UP TO .062 SHIMS MAY BE NECESSARY UNDER MOTOR'S FEET.
 - 2) APPROXIMATE MOTOR WEIGHT 9.100^{lbs}
 - 3) NON-DRIVE END BEARING IS INSULATED ANY CONNECTIONS TO THIS BEARING MUST ALSO BE INSULATED

MOTOR DATA:

- 1) ROTOR END FLOAT = .50
- 2) END FLOAT OF LIMITED END FLOAT CPLG. = .19
- 3) OIL CAPACITY PER BRG. = 2.0 QTS.
- 4) LUBE OIL VISCOSITY @ 100°F = 140-160 SSU
- 5) MAX. DIA. SHAFT CENTERS = 1.0
- 6) ALIGNMENT REQUIREMENTS = M3514



SIEMENS

F-5110-64984-01	
OUTLINE	CONFIDENTIAL - PROPERTY OF SIEMENS ENERGY & AUTOMATION, INC. LARGE MOTOR & GENERATOR DIVISION
WEATHER PROTECTED - WP11 - SPLIT SLEEVE BEARING MOTOR - 1000HM STATOR & BRG RTDS - 2 GROUND PADS - AUX BOX - 18 DROP MAIN BOX - SPACE HEATERS - C.W. ROTATION STD. SHAFT EXTENSION 3.000 x 6.00	
DATE: 1-15-75 BY: [Signature]	WORK NO. 53-904-584-430 DESIG: [Symbol] PROJ NO. 53-904-584-443
FILE 1 OF 1	FODS3020556