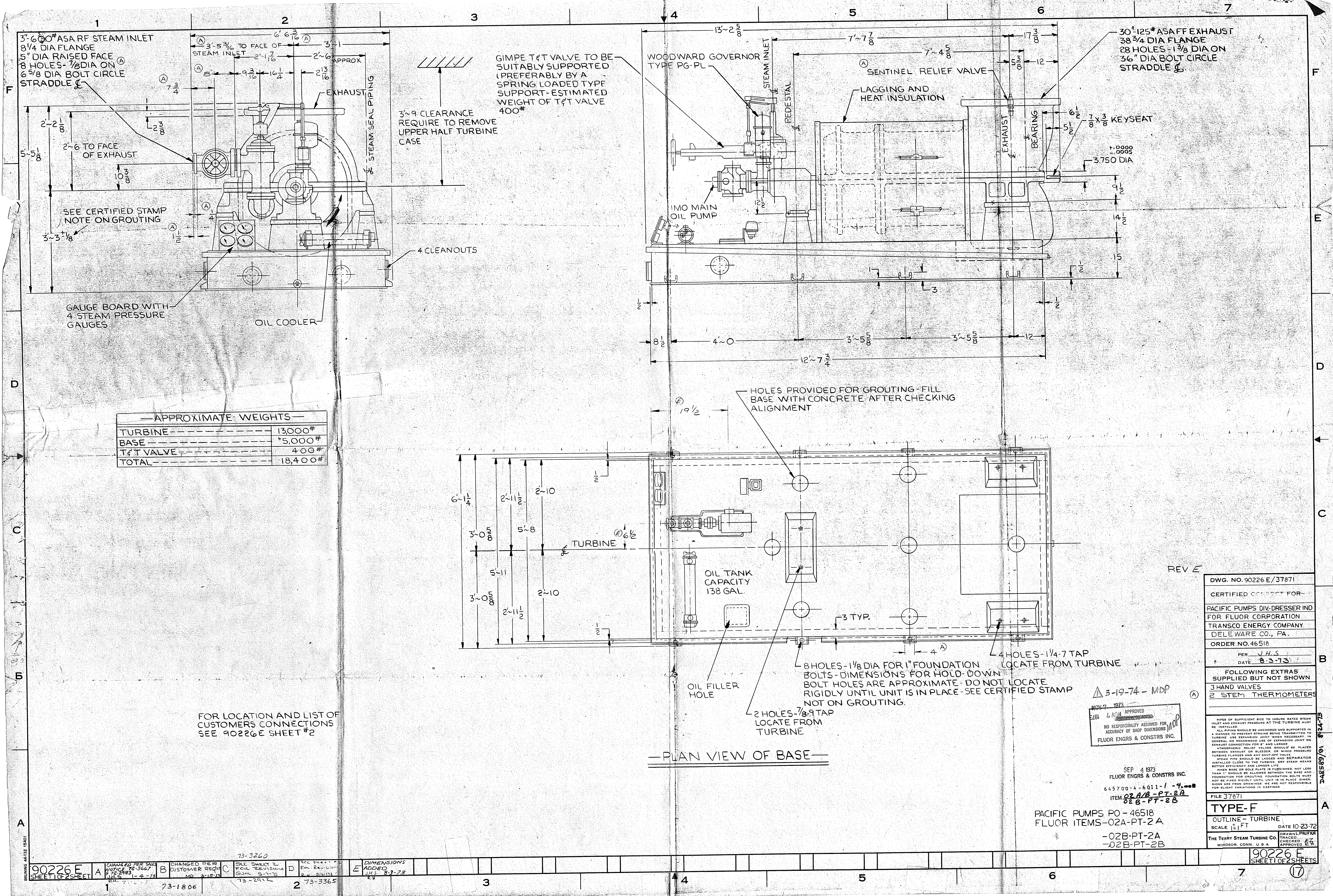
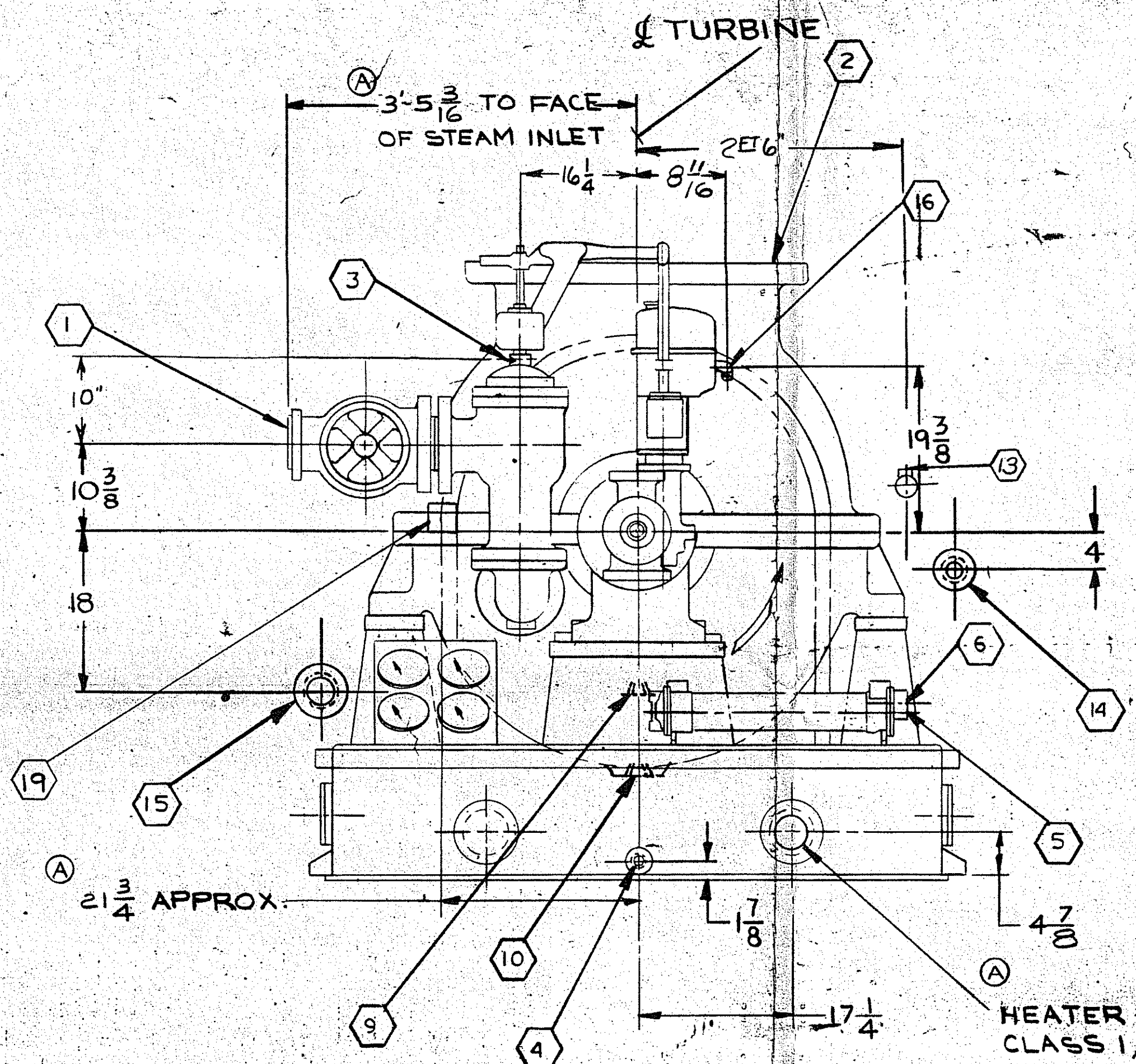
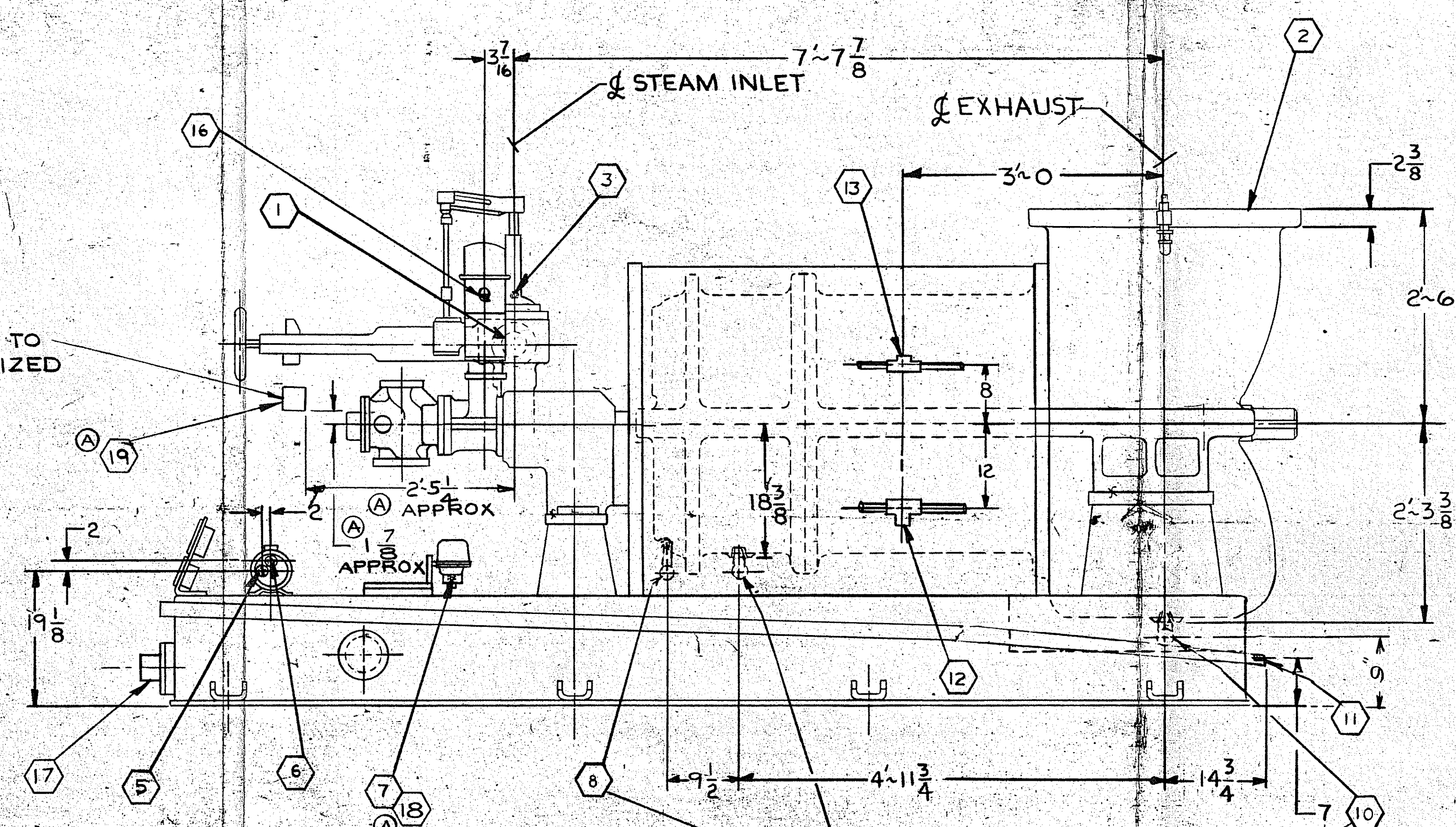






(A) SOLENOID TRIP VALVE TO TRIP WHEN DE-ENERGIZED 120V-1Ø-60 HZ
 (C) CLASS-I, GR D DIV 2

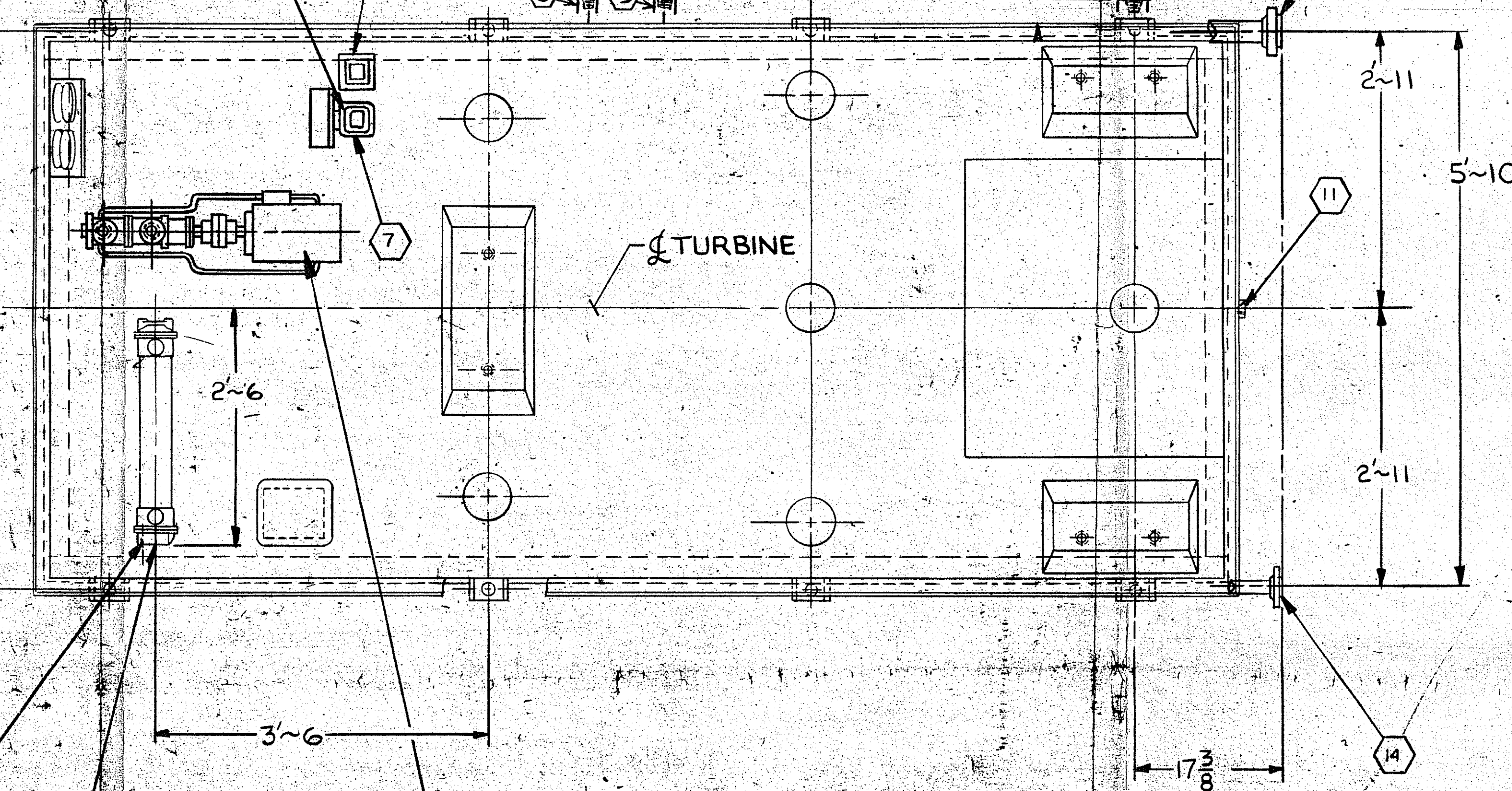
HEATER ~ 120V-1Ø-60 HZ CLASS I, GROUP D, DIVISION 1 MFG. THERMAL TYPE ~ 2250 WATTS WITH THERMOSTAT CONTROL



(A) LOW OIL PRESSURE SWITCH DPDT TO BE NORMALLY CLOSED TO OPEN AT 4.5 PSIG - TO CLOSE AT 6-7 PSIG 120V/1Ø/60 HZ CLASS I, GROUP D, DIVISION 1

THESE CONNECTIONS TO BE BROUGHT OUT TO EDGE OF BASE AS SHOWN. TST TO PROVIDE VALVES IN LINE.

(A) AUX. OIL PUMP PRESS SWITCH DP-DT CONTACTS CLOSE @ 6-7 PSI. AND OPEN @ 8-9 PSI. ~ 120V-1Ø-60 HZ CLASS I, GROUP D, DIVISION 1



(A) MOTOR DRIVEN AUX OIL PUMP 460V/3Ø/60 HZ CLASS I, GROUP D, DIVISION 1
 (B) HP 2

NOTES

1) PROVISIONS MUST BE MADE FOR DRAINING EXHAUST END WHILE UNIT IS IN OPERATION WITH A VACUUM TRAP OR MANUALLY OPERATED RECEIVER - SEE CUSTOMER CONNECTION *10

CUSTOMERS CONNECTIONS			
ITEM	NO REQ	SIZE	DESCRIPTION
1	1	3" 600# ASA RF FLANGE	STEAM INLET
2	1	30" 125# ASA FF FLANGE	EXHAUST-UP
3	1	1/2" NPT	L" GLAND LEAK-OFF
4	1	3/4" NPT	OIL TANK DRAIN
5	1	1 1/2" NPT	COOLING WATER INLET-33 GPM WATER @ 85°F @ 50 PSIG
6	1	1 1/2" NPT	COOLING WATER OUTLET
7	1	1/2" NPT	CONDUIT CONN-LOW OIL PRESSURE SWITCH
8	1	3/4" NPT	STEAM RING DRAIN
9	1	3/4" NPT	1ST STAGE DRAIN
10	1	1 1/2" NPT	EXHAUST DRAIN-SEE NOTE *1
11	1	3/4" NPT	DRIP RIM DRAIN
12	1	1 1/2" NPT	STEAM DRAIN FROM GLAND TO CONDENSER
13	1	3/4" NPT	SUPPLY STEAM FROM CUSTOMER LP SYSTEM- MAINTAIN 5 PSIG
14	1	1 1/2" 150# ASA RF FLANGE	CUSTOMER OIL FEED- 24 GPM @ 20 PSIG
15	1	3" 150# ASA RF FLANGE	CUSTOMER DRAIN FROM DRIVEN EQUIPMENT
16	1	1/4" SAE TUBE CONNECTION	PNEUMATIC SPEED CONTROL
17	1	1/4" NPT	ELECTRIC HEATER
18	1	1/2" NPT	AUX. OIL PUMP PRESS SWITCH
19	1	1/2" CONDUIT CONNECTION	SOLENOID TRIP VALVE, EXPLOSION-PROOF

REV F

DWG. NO. 90226 E/37871
CERTIFIED CORRECT FOR
PACIFIC PUMPS DIV. DRESSER INC.
FOR FLUOR CORPORATION
TRANSCO ENERGY COMPANY
DELEWARE CO., PA.
ORDER NO. 46518
PER
DATE 2-8-74
FOLLOWING EXTRAS SUPPLIED BUT NOT SHOWN
3 HAND VALVES
2 STEM THERMOMETERS

PIPES OF SUFFICIENT SIZE TO INSURE RATED STEAM INLET AND EXHAUST PRESSURE AT THE TURBINE MUST BE INSTALLED
 ALL PIPING SHOULD BE ANCHORED AND SUPPORTED IN A MANNER TO PREVENT STRAIN BEING TRANSMITTED TO TURBINE USE EXPANSION JOINT WHEN NECESSARY IN GENERAL WE RECOMMEND USE OF EXPANSION JOINT ON EXHAUST CONNECTION FOR 8" AND LARGER
 ATMOSPHERIC RELIEF VALVES SHOULD BE PLACED BETWEEN EXHAUST OR BLEEDER OR MIXED PRESSURE TURBINE FLANGES AND ANY SHUT-OFF VALVE
 STEAM PUMP SHOULD BE LAGGED AND SEPARATOR INSTALLED CLOSE TO THE TURBINE. DRY STEAM MEANS BETTER EFFICIENCY AND LONGER LIFE
 WHEN BASE OR BOLT PLATE IS FURNISHED, NOT LESS THAN 1" SHOULD BE ALLOWED BETWEEN THE BASE AND FOUNDATION FOR SHOOTING. FOUNDATION BOLTS MUST NOT BE FIXED RIGIDLY UNTIL UNIT IS IN PLACE OTHER BIDS ARE FROM DRAWING. WE ARE NOT RESPONSIBLE FOR SLIGHT VARIATIONS IN CASTINGS.

APPROVED
 NO RESPONSIBILITY ASSUMED FOR ACCURACY OF SHOP DIMENSIONS
 FLUOR ENGRS & CONSTRS. INC.

MAR 15 1974
 FLUOR ENGRS & CONSTRS. INC.
 645700-4-6011-2-5
 ITEM 02A-PT-2A; 02B-PT-2A;
 02B-PT-2B

PACIFIC PUMPS PO-46518
 FLUOR ITEMS-02A-PT-2A

02B-PT-2A
 02B-PT-2B

TYPE-F
OUTLINE-CUST. CONNECTIONS
SCALE 1"=1'-0"
DATE 10-24-72
THE TERRY STEAM TURBINE CO. DRAWN/PROF/CHKD
WINDSOR, CONN. U.S.A. APPROVED

90226 E
 SHEET 2 OF 2 SHEETS

TERRY TURBINE DATA

OPERATING CONDITIONS

RATED
1 H.V. CLOSE
ALL CLOSED

HORSEPOWER 3696 SPEED RPM 4010 STEAM RATE LB/HP/HR 8.6
3360 3750
1530 3750

OPERATING SPEED RANGE R.P.M. 3300/4010

1st CRITICAL SPEED 2400 RPM *2nd CRITICAL SPEED _____ RPM, TRIP SPEED 4150 RPM

STEAM CONDITIONS

INLET STEAM NORM. 700 PSIG 7.3 °FTT, MAX: INIT. _____ PSIG _____ °FTT, MIN: INIT. _____ PSIG _____ °FTT
 EXHAUST STEAM NORM. 26 PSIG/VAC _____ °FTT, MAX. 26 PSIG/VAC _____ °FTT, MIN. 26 PSIG/VAC _____ °FTT
 STEAM RATE GUARANTEE POINT, HP 3696 STEAM 700 PSIG, EXH. 126 °FTT, LB/HP/HR 8.6
 FULL LOAD EXHAUST TEMP. 126 °FTT, MAX. CASING PRESS. _____ PSIG, SENTINEL RELIEF VALVE SETTING 5 PSIG
 EXTRACTION ☐ ADMISSION ☐ NON RETURN VALVE ☐ EXTRACTION FLOW CONTROLLED ☐ UNCONTROLLED ☐

FOR RELIEF VALVE SIZING

MAX: THROTTLE FLOW LB/HR _____
 AT STEAM _____ PSIG EXHAUST _____ °FTT
 MAX: FLOW TO CONDENSER LB/HR @ IN Hg _____

CONSTRUCTION FEATURES

FRAME DESIGNATION TYPE F-17 HORIZONTAL ☒ VERTICAL ☐ CASING SPLIT: - HORIZONTAL ☒ VERTICAL ☐
 STEAM FLOW: HELICAL (SOLID WHEEL) ☐ AXIAL (BLADED) ☒ NUMBER OF WHEELS 17
 STAGES: PRESS. COMPOUND (RATEAU) ☐ VELOCITY COMPOUND (CURTIS) ☒ BLADES: TWO ROW ☒ THREE ROW ☐
 ROTOR CONSTRUCTION: BUILT-UP ☒ SOLID ☐
 STEAM CHEST ☐ STEAM RING ☒ JETS ☐ NOZZLE BLOCK ☒ REV: CHAMBERS ☐ RATEAU (NO JETS OR NOZZ.) ☐
 NOZZLE GROUP POSITIONS. 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐
 NO. NOZZLES 11 DIAMETERS .359375
 NO. NOZZLE GROUPS 4 NO. IN EACH GROUP 5-3-2-1
 HAND VALVES: - LOW STEAM ☐ PART LOAD (ECON) ☒ OVERLOAD ☐ AUTO. VALVES ☐ POSITION 4-7-9

NOTE: JETS, HAND VALVES AND NOZZLE GROUPS POSITIONS ARE NUMBERED IN A CLOCKWISE DIRECTION STARTING JUST BELOW THE CASING HORIZONTAL JOINT AT THE RIGHT HAND SIDE WHEN FACING THE STEAM RING OR STEAM CHEST FROM THE TURBINE HIGH PRESS. END.

ROTATION FACING COUPLING END: - CW ☐ CCW ☐ CASING SUPPORT: FOOT ☒ PEDISTAL ☐ CENTERLINE ☐
 BEARINGS (ROTOR): - RADIAL TYPE ☐ THURST TYPE 46 KINGSBURY JHS
 LUBRICATION: - RING OILED ☐ FORCED FEED ☐ CIRCULATING ☒ FROM: - TURBINE ☒ GEAR ☐ BY OTHERS ☐
 OVERSPEED TRIP: - MECHANICAL ☐ DISC TYPE ☐ PIN TYPE ☒ ELECTRICAL ☐ HYDRAULIC ☐
 TRIP VALVE BUTTERFLY ☐ BALL ☐ TRIP AND THROTTLE ☒
 TRIP AND THROTTLE VALVE: - NONE ☐ OPERATE: - AIR ☐ MOTOR ☐ HYDRAULIC ☒ MANUAL ☒
 TRIP: - MECHANICAL ☐ HYDRAULIC ☐ SOLENOID ☒ AIR ☐ EXH. PRESS. ☐ MANUAL ☐ MANUF. GIMPEL
 INTERSTAGE GLAND SEALS: - CARBON ☐ LABYRINTH ☒ LABY ☐ No: GOVERNOR END ☐ No: COUPLING END 4 CARBON
 END GLAND SEALS: - CARBON ☒ LABYRINTH ☐

GLAND SEAL SYSTEM: - PRESSURE LEAK-OFF ☐ VACUUM CONDENSING ☒
 TURBINE CONNECTIONS

	SIZE	RATING	FLANGE FACE	POSITION
INLET	<u>3"</u>	<u>600# ASA</u>	<u>RF</u>	<u>LN FACING COUPLING</u>
EXHAUST	<u>30"</u>	<u>125# ASA</u>	<u>FF</u>	<u>UP</u>
EXTRACTION				
ADMISSION				

GOVERNOR TYPE: - MECHANICAL ☐ HYDRAULIC ☐ ELECTRICAL ☐ AIR HEAD ☒ NEMA CLASS D
 GOVERNOR VALVES: - SINGLE ☒ MULTI ☐ NO ☐ BUTTERFLY ☐ BY OTHERS ☐
 ACTUATION: - DIRECT ☐ INDIRECT ☒ REMOTE SERVO ☐ OIL RELAY ☐

GOVERNOR MANUFACTURER Woodward MODEL PG-PL
 COUPLING SUPPLIED BY: - TERRY ☐ OTHERS ☒ HIGH SPEED ☐ TYPE _____ LOW SPEED ☐ TYPE _____
 BASE TYPE: - BOX ☒ PLATE ☐ "I" BEAM ☐ SOLEPLATES ☐ UNDER TURBINE ☒
 UNDER TURBINE AND GEAR ☐ UNDER TURBINE AND DRIVEN EQUIPMENT ☐ NONE ☐

WEIGHTS AND DIMENSIONS: SEE OUTLINE DRAWING

TURBINE SERIAL NO. 37871A8C

NOTE* WHEN APPLICABLE TO ORDER.

TERRY STEAM TURBINE COMPANY
 GSTD. SECT 2. REV. 0-72