



### FUJI 9.4 MW CONDENSING TURBINE & GENERATOR

Turbine Manufacturer	Fuji
Type	Single Casing Extraction Condensing
Rated Output	9400 KW
Main Steam Pressure At Main Stop Valve	900 psig
Temperature	825 F
Condenser Vacuum	1.227 psig
Rated Speed	5985 RPM
<b>Extraction Pressure At Turbine Outlet:</b>	
No. 1 Extraction	163.5 psig
No. 2 Extraction	135 psig
No. 3 Extraction	60 psig
<b>Reduction Gear:</b>	
Type	Double Helical
Speed	5985/1800 RPM
<b>AUXILIARY EQUIPMENT</b>	
1 Main Oil Tank Capacity	2456 gallons
<b>2 Main Oil Pumps:</b>	
Type	Centrifugal
Capacity	542 gallons
Speed	3600 RPM
Motor	A.C. Motor

## CONDENSING TURBINE

1 Emergency Oil Pump:	
Type	Centrifugal
Capacity	146 gallons
Speed	1750 RMP
Motor	D.C. Motor
2 Oil Coolers:	
Type	Shell and Tube (Vertical)
Cooling Water	200 GPM
1 Oil Tank Vapor Extractor:	
Type	Electric Turbo Blower
Capacity	348 CFM/min

## CONDENSING TURBINE GENERATOR

Type	Horizontal Cylindrical Revolving Field Totally Enclosed
Output	11750 KVA
Voltage	12000 Volts
Current	565 Amps
Number of Poles	
Frequency	60 HZ
Speed	1800 RPM
Exciting System	Brushless
Cooling System	Totally Enclosed Water-Air Cooled
1 Brushless Exciter:	
Output	82 KW
Voltage	D.C. 195 Volts
Current	D.C.421 Amps
Speed	1800 RPM
Number of Poles	12
1 Permanent Magnet Generator:	
Output	3 KVA
Voltage	220 Volts
Current	7.87 Amps
Speed	1800 RMP
Condenser:	
Manufacturer	BASCO
Type	Horizontal, straight tube 71.25 x 6 Btu/hr
Size	29' x 75" Diameter
Capacity	75000 lb/hr
Exhaust Pressure	2.5 inch HgA
Cooling Water	85 F
Minimum Cooling Water	9500 GPM

Condensing Turbine

## SPARE PARTS

1 Set Bearing Generator
1 Set Pad for No. 1 Journal Bearing
1 Set Pad for No. 2 Journal Bearing
1 Set Pad for Thrust Bearing
1 Gland Packing Front (Labyrinth Seal)
1 Gland Packing Rear (Labyrinth Seal)
1 Journal Bearing No. 1 Turbine
1 Journal Bearing No. 2 Turbine
1 Set Metal Bearing
1 Bearing No. 1 Turbine
1 Bearing No. 2 Turbine
1 Complete Set of Turbine Blades for last three stages



## INVENTORY OF EQUIPMENT CONDENSING TURBINE

CONDENSING TURBINE - 9400 KW  
REDUCTION GEAR- 5985/1800 RPM  
1 MAIN OIL TANK - 2450 GPM  
1 MAIN OIL PUMP 542 GPM  
1 EMERGENCY OIL PUMP  
1 AUXILIARY OIL PUMP  
2 OIL COOLERS 200 GPM  
1 GENERATOR- 11,750 KVA/12,000 VOLTS  
1 BRUSHLESS EXCITER - 82 KW  
1 PERMANENT MAGNET GENERATOR 3 KVA  
1 CONDENSER (BASCO) - 71.25 X 10 BTU/HR  
1 DUMP CONDENSER  
1 CONDENSING TURBINE GLAND STEAM CONDENSER 5/8 X 92"  
LENGTH  
2 CONDENSATE PUMPS  
2 COOLING WATER PUMPS  
1 CURRENT TRANSFORMER  
1 SURGE PROTECTOR GENERATOR PANAL  
1 VOLTAGE REGULATOR AND ELECTRO-HYDRAULIC GOVERNOR  
(1 PANEL)  
1 CONTROL PANEL FOR TURBINE AND GENERATOR  
1 LOCAL CONTROL PANEL FOR TURBINE  
1 COVER TURBINE  
2 DC MOTOR PANELS  
LOW PRESSURE FEED WATER HEATER  
1 HIGH PRESSURE FEED WATER HEATER  
PARTS FOR THE CONDENSER  
1 ACCUMULATOR  
1 OIL FILTER  
1 OIL PURIFIER

4 BOXES MOTOR CONTROL CENTER  
1 EXTRACTOR DRAIN VALVE (CONTROL PANEL)  
1 BOX (THERMOMETERS AND MANOMETERS  
1 MOTOR CONTROL CENTER  
4 OIL PUMPS 2 OIL FILTERS 8 SMALL PUMPS -  
4 PUMPS (LIME SLURRY)  
8 WORTHINGTON PUMPS 8 SCREEN FILTERS  
13 SMALL ELECTRIC MOTORS  
8 INJECTION CHEMICAL PUMPS  
14000 A/S FIBERGLASS FOR OIL

#### **LIST OF SPARE PARTS**

GENERATOR (TWO) **BOX NO. 2 (CONDENSING TURBINE)**

1 SET BEARING GENERATOR (TWO) **BOX NO.3 (CONDENSING TURBINE)**

1 SET SPARE PARTS FOR EXTRACTION CHECK VALVE  
GRAPHITE PACKING (EXTRACTION CHECK VALVE) SPARE  
PARTS FOR OIL PUMPS  
PACKING (CONTROL VALVE) 1 SET PAD FOR NO. 1  
JOURNAL BEARING 1 SET PAD FOR NO.2 JOURNAL  
BEARING 1 SET PAD FOR THRUST BEARING

#### **BOX NO.5 (CONDENSING TURBINE)**

1 GLAND PACKING FRONT (LABYRINTH SEAL)  
1 SET MOVING BLADES (20 PIECES) 1 SET  
MOVING BLADES (20 PIECES)  
1 COMPLETE SET OF TURBINE BLADES FOR THE LAST THREE STAGES

**BOX NO.7 (CONDENSING TURBINE)**

I GLAND PACKING REAR

(LABYRINTH SEAL) I BEARING NO. 1

TURBINE I BEARING NO.2 TURBINE I

SET METAL BEARING (TWO)

**BOX NO. 13,14,15,16 (CONDENSING TURBINE)**

**SPARE PARTS FOR MAIN STEAM VALVE AND TOOLS**

**SEVERAL BOXES OF TECHNICAL MANUALS AND ENGINEERING  
DRAWINGS**