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THE FOLLOWING USED STEAM TURBINE IS AVAILABLE FOR SALE WITH US WITH IMMEDIATE DELIVERY:

1 No. 12 MW TRIVENI (2016) make, Condensing type Steam Turbine with Gearbox, having the following technical specifications:

TECHNICAL DETAILS:

TURBINE:

Make	:	TRIVENI
Year of make	:	2016
Capacity	:	12 MW
Inlet Steam Pressure	:	64 ATA
Inlet Steam Temperature	:	485°C.
Inlet Steam Flow	:	49.88 TPH
Wheel Case Pressure	:	32.29 kg/cm ²
Bleed Steam Pressure - I	:	3.77 ATA
Exhaust Steam Pressure	:	0.20 ATA
Turbine Speed	:	6827 RPM
Turbine Trip Speed	:	7510-7850 RPM
1 st Critical Speed	:	2300-2800 RPM
No. of Stages	:	12
Steam Inlet Size	:	8"
Direction of Rotation from Turbine end	:	Anti Clock Wise

GEAR BOX:

Make	:	TRIVENI
Year of make	:	2016
Type	:	Double Helical
Model	:	N2319C
Power	:	12,600 kW / 16899 HP
Input Speed	:	6827 RPM
Output Speed	:	1500 RPM
Ratio	:	4.551
Service Factor	:	1.7
Lube Oil Pressure	:	1.5 – 2.0 kg/cm ²

OIL SYSTEM:

Lubricating Oil Grade	:	ISO-VG-46
Oil Tank Capacity (Normal)	:	5000 ltrs
Quantity Reqd. for 1 st fill	:	6500 ltrs (Including OHT)
Quantity Reqd. for Flushing	:	4500 ltrs
Lube Oil Pressure Range	:	1.8 – 2 kg/cm ² (g)
Control Oil Pressure Range	:	25 kg/cm ² (g)
Over Head Tank Capacity	:	1000 ltrs

MAIN LUBRICATING OIL PUMP:

Type	:	Geared
Capacity	:	140 IGPM
Driver	:	Gear wheel shaft
Speed	:	1500 RPM

AUXILIARY OIL PUMP:

Type	:	Geared
Capacity	:	140 IGPM
Discharge Pressure	:	3.5 kg/cm ² (g)
Speed	:	1440 RPM
Motor	:	15 HP

EMERGENCY OIL PUMP:

Type	:	Geared
Capacity	:	48 IGPM
Discharge Pressure	:	2 kg/cm ² (g)
Speed	:	1500 RPM
Motor	:	5 HP

CONTROL OIL PUMP (2XCOP):

Type	:	Screw
Capacity	:	25 IGPM
Discharge Pressure	:	25 kg/cm ² (g)
Speed	:	1450 RPM
Motor	:	7.5 kW

OIL COOLER:

Type	:	Plate Type
Capacity	:	140 IGPM
Oil Temperature Inlet	:	60°C
Oil Temperature Outlet	:	45°C
Cooling Water Temperature Inlet	:	35°C
Cooling Water Temperature Outlet	:	40°C
Cooling Water Flow	:	49 IGPM

OIL FILTER (LUBRICATING OIL):

Type	:	Duplex
Capacity	:	140 IGPM
Filtration	:	16 Microns

CONTROL OIL FILTER:

Type	:	Duplex
Capacity	:	30 IGPM
Filtration	:	10 Microns

EOP FILTER:

Type	:	Simpex
Capacity	:	45 IGPM
Filtration	:	15 Microns

PRESSURE RELIEF VALVE (MOP):

Duty	:	Lube Oil
Size Inlet/Outlet	:	1" NB
Set Pressure	:	3.55 kg/cm ² (g)
Discharge Capacity	:	25 IGPM

PRESSURE RELIEF VALVE (AOP):

Duty	:	Lube Oil
Size Inlet/Outlet	:	2"X3" NB
Set Pressure	:	3.2 kg/cm ² (g)
Discharge Capacity	:	145 IGPM

PRESSURE RELIEF VALVE (LUBE OIL)

Duty	:	Lube Oil
Size Inlet/Outlet	:	1" NB
Set Pressure	:	1.8 kg/cm ² (g)
Discharge Capacity	:	10 IGPM

PRESSURE RELIEF VALVE (COP):

Duty	:	Control Oil
Size Inlet/Outlet	:	1"X2" NB
Set Pressure	:	26 kg/cm ² (g)
Discharge Capacity	:	50 IGPM

PRESSURE RELIEF VALVE (COP):

Duty	:	Control Oil
Size Inlet/Outlet	:	1/2" NB
Set Pressure	:	25.5 kg/cm ² (g)
Discharge Capacity	:	45 IGPM

ACCUMULATOR:

Capacity	:	20 ltrs
Pre Charged Pr.	:	20 kg/cm ² (g)

SOLENOID VALVE:

Volts	:	110 V
Connection	:	3/4 "NPTF
Action	:	De Energise to trip

3 WAY SOLENOID VALVE:

Volts	:	110 V
Connection	:	1/2 "BSPF
Action	:	De Energise to trip

HIGH SPEED COUPLING:

Type	:	Flexible
Model	:	04094-00 E
DBSE	:	550 MM

LOW SPEED COUPLING:

Type	:	Flexible
Model	:	04095-00 C
DBSE	:	500 MM

TURBINE JOURNAL BEARINGS STEAM END:

Type	:	Tilting Pad
Size	:	160
Quantity	:	1

TURBINE JOURNAL BEARINGS EXHAUST END:

Type	:	Tilting Pad
Size	:	180
Quantity	:	1

TURBINE THRUST BEARING:

Type	:	Tilting Pad
No. of Pads per side	:	11

GOVERNOR:

Make	:	Woodward
Type	:	505 DE

SERVO-ACTUATOR:

Make	:	MOOG
Operating Pressure	:	25 kg/cm ² (g)

GLAND VENT CONDENSER:

Type	:	Horizontal Shell & Tube
Steam Flow	:	350 kg/hr
Condensate Flow	:	45340 kg/hr (Normal)
Condensate Temperature Inlet	:	63.36°C (Normal)
Condensate Temperature Outlet	:	68.59°C (Normal)
Surface Area	:	11.99 m ²
Condensate Pressure	:	12 Bar (g)
Blower Capacity	:	650 Air at 2" WC
Blower Motor Rating	:	3 HP

SCOPE OF SUPPLY:

The above Turbine & Gearbox is complete with the following:

1. Turbine with Gearbox mounted on common base frame with MOOG make actuator.
2. 1 No. ESV.
3. 1 No. EOP with Motor.
4. 1 No. AOP with Motor.
5. 1 No. MOP mounted on gearbox.
6. 1 No. Accumulator.
7. Barring Gear with Motor.
8. High Speed & Low Speed Couplings.
9. 1 Set of Duplex Oil Filter.
10. 2 Nos. Radiators for Oil Cooling.
11. 1 No. Gland Vent Condenser with Blower & Motor.
12. 1 No. Turbine Gauge Panel.
13. 1 No. Turbine Control Panel with Woodward make 505 Electronic Governor.

NOTE:

1. The above turbine is in excellent working condition. It was in operation on full load till 14/8/25.
2. The video of the turbine in operation is also enclosed herewith - [CLICK HERE](#) for the video.

PHOTOS:































