

3.25 MW WH ALLEN MAKE EXTRACTION - BACK PRESSURE STEAM TURBINE GENERATOR SET

- 1 No. 3.25 MW WH Allen Sons & Co. Ltd. make, STG Set having an inlet pressure of 650 psig, extraction pressure of 18.3 bar G & an exhaust pressure of 2 bar G.

Year of Manufacture : 1969

Year Retired : 2001

Condition : Good, Installed on Foundation

TURBINE DETAILS :

Manufacturer: WH Allen Sons &
Co. Ltd., England

Type: Single Cylinder, Impulse
Steam Turbine

Configuration: Eight Rateau (Pressure
Compound) stages

Rating/ Capacity: 3250 kW

Rated Speed: 9500 RPM

Inlet Flow: A 28,000 kg/ Hr.

Normal Inlet Pressure:42.5 bar G

Normal Inlet Temperature:404 Deg. C.

Extraction Pressure: 18.3 bar G

Extraction Flow: 0 – 28000 kgs/Hr.

Rated Exhaust Pressure: 2 bar G

GEARBOX DETAILS :

Manufacturer: NEI APE Ltd., England.

Type: Parallel Shaft

Maximum Cont. Rating: 3250 kW

Rated Input Speed: 9500 RPM

Rated Output Speed: 1500 RPM

Reduction Ratio: 6.33 : 1

Efficiency: 98 %

ALTERNATOR DETAILS :

Manufacturer: Parsons Peebles Ltd.,
Scotland.

Type: 4 Pole, Brushless

Enclosure: C.A.C.W.

Insulation: Class 'B'

Apparent Power: 4643 kVA

Power Factor: 0.7

Active Power: 3250 kW

Rated Voltage: 10000 V

Rated Current: 268 A

Phases: 3

Frequency: 50 Hz

Connection: Star

Efficiency: 97 %

EXCITATION DETAILS :

Manufacturer: Parsons Peebles Ltd., Scotland

Type: Brushless

Insulation: Class 'B'

Active Power: 22.4 kW

Speed: 1500 RPM

Voltage: 20 V

Current: 651 A