

Westinghouse Electric Turbine Generator

The turbine generator unit as supplied by the Westinghouse Electric Corporation is a two cylinder tandem compound condensing reheat turbine. At rated speed of 3600 rpm the unit is designed for 60,000 kw, 0.80 power factor, 75,000 kw maximum rating, when supplied with steam at 1450 psi gauge throttle pressure, 1000 Degrees F total temperature with reheat at 1000 Degrees F total temperature and 1.0" Hg absolute exhaust pressure.

The unit will have sufficient turbine capacity to carry 75,000 kw when operating under steam conditions of 1450 psi gauge, 1000 Degrees F total temperature with reheat to 1000 Degrees F total temperature and condensing to 2-1/2" Hg absolute.

The unit is covered by Westinghouse Electric Company Contract No. G.D. BG 78800-TP with serial numbers and ratings as follows:

Turbine No. H.P. 5-A7080-1, LP 5A-7081-1, 60,000 kw, 3600 rpm, 36 stages

Generator No. 1-S-36-P-725, 75,000 Kva, 3600 rpm, 13,800 volts, 0.5 psig H2 press.

Main Exciter 225 kw, 3600 rpm, 250 volts

Pilot Exciter 2.5 kw, 3600 rpm, 250 volts

The approximate weights of the unit are as follows:

H.P.-O.P. Turbine Cylinder Cover	35,000 pounds
L.P. Turbine Cylinder Cover	30,000 pounds
L.P. Turbine Blade Ring (Upper Half)	34,000 pounds
H.P.-I.P. Turbine Rotor	25,000 pounds
L.P. Turbine Rotor	29,000 pounds
Generator Rotor	60,300 pounds
Generator Stator	242,450 pounds
Turbine exhaust chamber	76,000 pounds