

MECHANICAL HANDBOOK  
SECTION 4.4

DATA SHEET N° 1645-Q55-1

Hampreys and Glasgow, Ltd. London, S.W.1.		TURBINE DUTY			Item No. Q1851		
		Contract C1645 VARNA			Sheet 2 of 3 Sheets		
Main Item No. Q1851				Plant 630 MTRD AMMONIA			
Total No. of sets ONE				Location VARNA, BULGARIA			
1 Service PROCESS AIR COMPRESSOR DRIVER							
2 STEAM		-		A		B	C
3 CONDITIONS		Normal		MECHANICAL DESIGN		Start-up	Max. Initial
4 Inlet Pressure		Kg/cm <sup>2</sup> A 40.5		46.8		40	
5 Inlet Temperature		°C 358		400		SUPERHEATED	IF NECESSARY.
6 Pass in/out Pressure		o					
7 Temperature		o					
8 Exhaust Press./Vacuum		Kg/cm <sup>2</sup> a 0.12				Min. Exhaust	Max. Exhaust
9 TURBINE DUTY		-		Rated		Normal	
10 Power		KW 4,774		4340		4515	
11 Speed (Turbine/Driven Unit)		R.P.M. 10,200		10,200		10,200	
12 Steam Conditions		A		A		A	
13 Consumption		Kg/h. 22,800		20,500		21,450	
14 Consumption Rate		Kg/kWh 4.78		4.73		4.75	
15 Pass in/out Flow		o					
16 Temperature		o					
17 Exhaust Temperature		°C					
18 Wetness		%					
19 Design & Test Tolerances (on 15)		%& %					
20							
21							
22							
23							
24							
25 TURBINE RATED DUTY shall be as follows:-							
26 Rated Speed - either		(a) Driven Unit speed necessary to obtain Normal/Rated, Capacity/Pressure					
27		at Constant/Specified, Pressure/Capacity allowing for both					
28		guarantee and test tolerances (--- %).					
29 or		(b) Driven Unit Rated speed, if greater than (a),					
30 or		(c) Driven Unit speed if latter fixed,					
31 or		(d) Driven Unit Maximum Continuous Speed,					
32 Rated Power - either		(e) Driven Unit power at Rated Capacity/Pressure and Turbine Rated Speed					
33 or		(x) Driven Unit power including both guarantee and test tolerances					
34		(--- %) at its Normal/Rated Duty,					
35 or		(y) Driven Unit Rated power requirement,					
36 or		(z) 110% Driven Unit Normal power requirement, AT RATED DUTY					
37		- whichever is the higher					
38							
39 TURBINE NORMAL DUTY shall be Driven Unit Normal (Rated, if no Normal) Duty requirements.							
40 Turbine shall/need not be capable of Normal/Rated Duty with either							
41 Minimum Initial/Maximum Exhaust steam conditions, other conditions Normal							
42 CONDENSER. Item No. H1855		CONDENSER MATERIALS:-					
43 Type WITH DIVIDED CHAMBERS		SHELL:- CARBON STEEL					
44 Designed/Manufactured by NUOVO PIGNONE		TUBES:- ADMIRALTY BRASS					
45 Supplied with Level Gauge/Vacuum Breaker/Relief Valve		TUBE SHEETS:- MUNTZE METAL					
46 HIGH LEVEL ALARM, LEVEL CONTROLLER AND VALVE							
47 Surface Area 248 M <sup>2</sup>							
48 Hyd. Test Press; Steam/Waterside 7.5 Kg/cm <sup>2</sup> A							
49 ACCORDING TO HEI STANDARD							
50 Specification/Code SEE SHEET II							
PRPD BY RJP RJP RJP		Remarks:					
CHKD BY							
APVD BY							
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