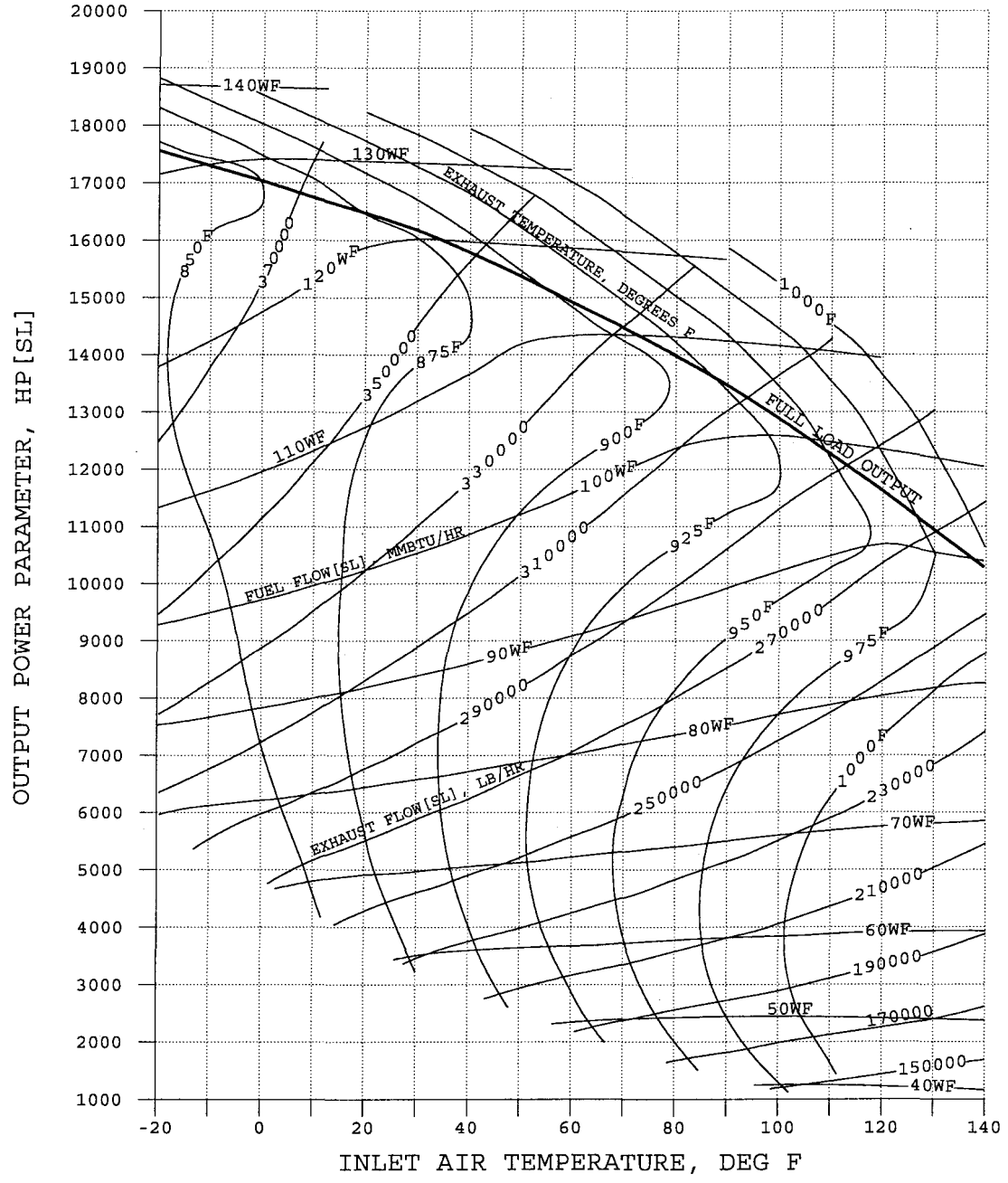
MARS 100S-15000 TMF-2S REV. 3.0
CS/MD GAS TURBINE
122F MATCH
REF: SD-24837[S] SHT. 1
[DATE: 1-APR-1998]

.NOMINAL PERFORMANCE
.ELEVATION SEA LEVEL
.RELATIVE HUMIDITY 60 PERCENT
.ZERO INLET DUCT PRESSURE LOSS
.ZERO EXHAUST DUCT PRESSURE LOSS
.NO GAS PRODUCER POWER EXTRACTION
.NO WATER INJECTION
.NO OUTPUT GEARBOX
.MAXIMUM POWER TURBINE SPEED
.[LHV: 20610 BTU/LB]

NATURAL GAS FUEL

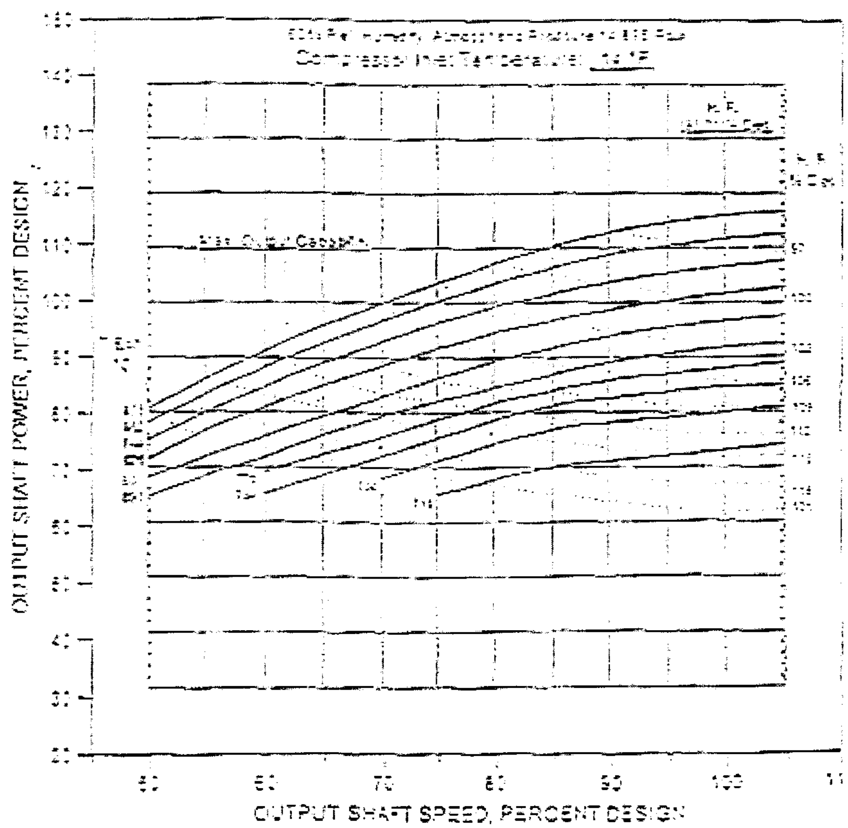


GAS TURBINE MODEL GE10/2 DLE
Estimated Performance Mechanical Drive Applications

Fuel Type		Natural Gas
Design Output	HP	15449
Design Heat Rate (LHV)	BTU/HP	7957
Design Exhaust Temper.	°F	[illegible]
Design Exhaust Flow	Lb/sec	[illegible]
Output Shaft Des. Speed	RPM	[illegible]
Design Point		Sea Level, ISO

NOTES: 1. Auxiliaries shown on diagram SOM [illegible] Sh. 2
2. Performance measured at the Power Turbine [illegible] coupling with zero inlet and exhaust pressure drops and includes allowances for shaft driven auxiliaries
3. Correction of Compressor Speed Control
4. Additional Inlet and Exhaust pressure loss effects

Effect on	Output	Heat Rate	Exhaust Temp.
100 mm H_2O Inlet	-1.6%	+0.54%	+2.6 °F
100 mm H_2O Exhaust	-0.5%	+0.60%	+0.5 °F



3	REVISIONE - REVISION
2	REVISIONE - REVISION
1	REVISIONE - REVISION

REV. [illegible]

N. SOM 4789/4

Nuovo Pignone

FIRENZE

GE 10/2 Performance Maps

Mechanical Drive Applications

GAS TURBINE MODEL PGT10B/2 DLE

Estimated Performance, Mechanical Drive Applica[illegible]

Fuel Type		Natural Gas
Design Output	HP	[illegible]
Design Heat Rate (LHV)	BTU/HP	[illegible]
Design Exhaust Temper.	°F	[illegible]
Design Exhaust Flow	Lb/sec	[illegible]
Output Shaft Des Speed	RPM	[illegible]
Design Point		Sea Level, ISO

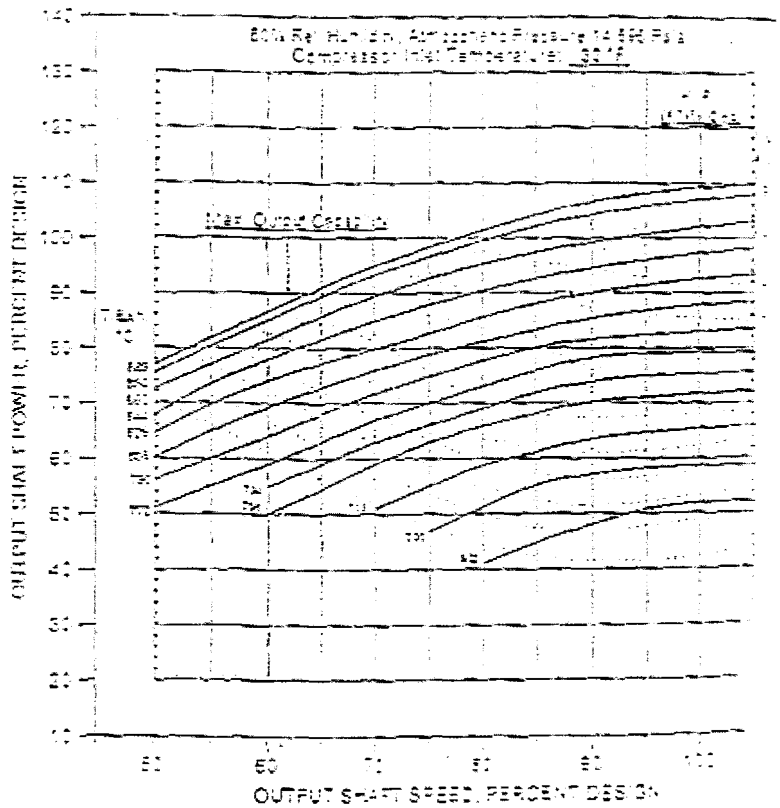
NOTES: 1 Altitude effects on diagram [illegible]

2 Performance measured at the Power Turbine [illegible] coupling with zero inlet and exhaust pressure drops and included allowance for shaft driven auxiliaries.

3 Operation on Compressor [illegible]

4 Additional inlet and Exhaust pressure loss effects:

Effect on	Output	Heat Rate	Exhaust Temp
100 mm H_2O Inlet	[illegible]	[illegible]	[illegible]
100 mm H_2O Exhaust	[illegible]	[illegible]	[illegible]



3	REVISIONE – REVISION	
2	REVISIONE – REVISION	
1	REVISIONE – REVISION	
0	EMISSIONE - ISSUE	
REV	DESCRIZIONE - DESCRIPTION	

N. SOM[illegible]

A

SOSTITUISCE IL - REPLACES

SOSTITUITO DA - REPLACED BY

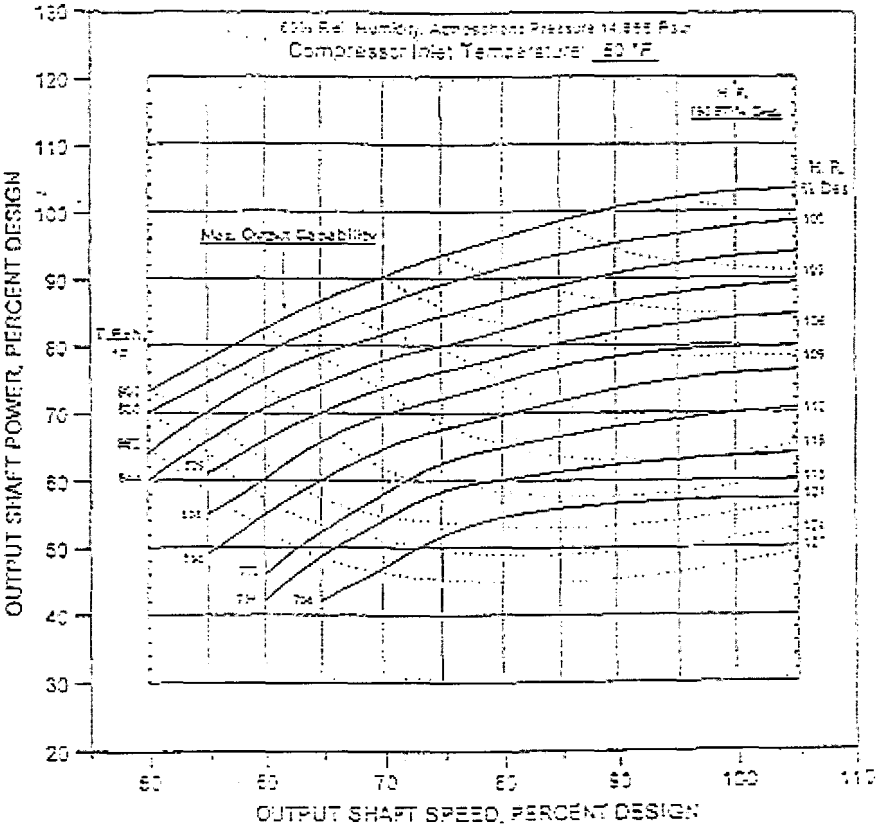
UTP 020 / (II-A)

GAS TURBINE MODEL GE10/2 DLE
Estimated Performance, Mechanical Drive Applications

Fuel Type		Natural Gas
Design Output	HP	15445
Design Heat Rate (LHV)	BTU/HP	7937
Design Exhaust Temper.	°F	835
Design Exhaust Flow	Lb/sec	103.02
Output Shaft Des. Speed	R.P.M.	7,900
Design Point		Sea Level ISO

NOTES 1. Altitude effects on diagram SOM 2559514 Sh. 2
2. Performance measured at the Power Turbine load coupling with gas inlet and exhaust pressure drops and includes allowances for shaft driven auxiliaries
3. Operation on Compressor Speed Control
4. Additional Inlet and Exhaust pressure loss effects

Elevation	Output	Heat Rate	Exhaust Temp.
100 mm H_2O Inlet	-1.8%	+0.64%	+0.6 °F
100 mm H_2O Exhaust	-0.6%	+0.60%	+0.6 °F



3	REVISIONE – REVISION	ITEM 0805127
2	REVISIONE – REVISION	
1	REVISIONE – REVISION	N. SOM 4789814

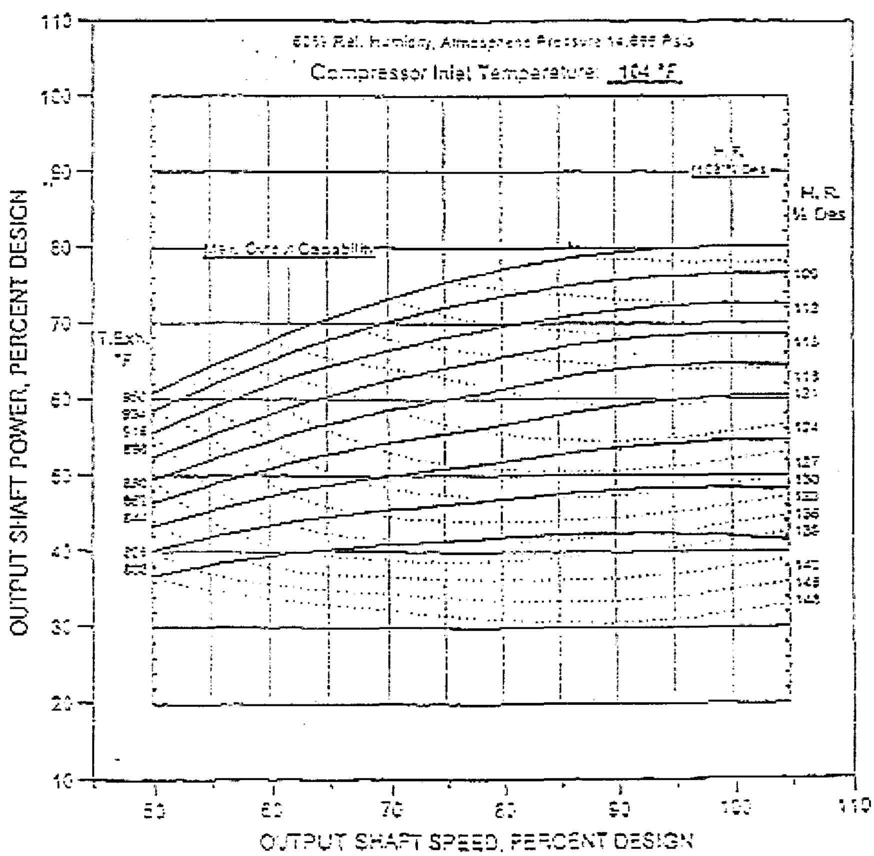
Nuovo Pignone FIRENZE	GE 10/2 Performance Maps Mechanical Drive Applications

GAS TURBINE MODEL GE10/2 DLE
Estimated Performance, Mechanical Drive Applications

Fuel Type		Natural Gas
Design Output	HP	15449
Design Heat Rate (LHV)	BTU/HP	[illegible]
Design Exhaust Temper.	°F	[illegible]
Design Exhaust Flow	Lb/sec	[illegible]
Output Shaft Des Speed	RPM	[illegible]
Design Point		Sea Level, ISO

NOTES: 1. Altitude effects on diagram SOM [illegible] Sh. 2
2. Performance measured at the Power Turbine load coupling with zero inlet and exhaust pressure drops, and includes allowances for shaft driven auxiliaries
3. Operation on Compressor Speed Control
4. Additional Inlet and Exhaust pressure loss effects:

Effect on	Output	Heat Rate	Exhaust Temp.
100 mm H_2O Inlet	-1.6%	+0.64%	-2.5 °F
100 mm H_2O Exhaust	-0.6%	+0.60%	+2.5 °F



3	REVISIONE – REVISION	ITEM 0505127
2	REVISIONE – REVISION	
1	REVISIONE – REVISION	N. SOM 4789S/4
0	EMISSIONE - ISSUE	

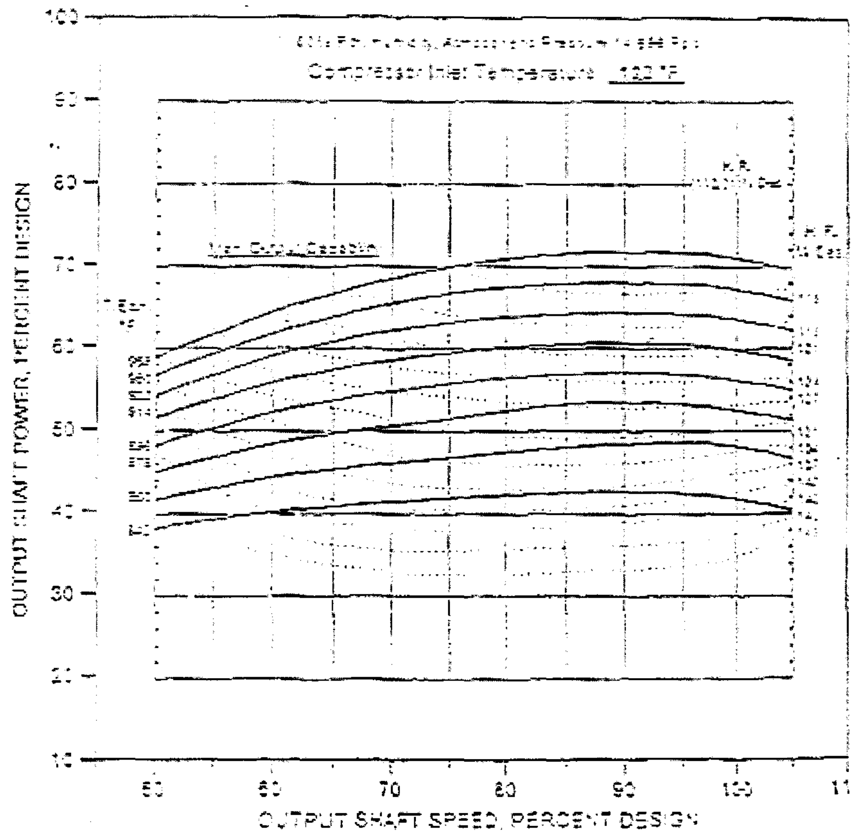
TP 020 / (I-A)

GAS TURBINE MODEL GE10/2 DLE
Estimated Performance, Mechanical Drive Applications

Fuel Type		Natural Gas
Design Output	HP	15449
Design Heat Rate (LHV)	BTU/HP-hr	[illegible]
Design Exhaust Temp.	°F	[illegible]
Design Exhaust Flow	Lb/sec	103.[illegible]
Output Shaft Des Speed	RPM	7,900
Design Point		Sea Level, ISO

NOTES: 1. [illegible]
2. Performance measured at the Power Turbine load coupling with zero inlet and exhaust pressure drops and includes allowances for shaft driven auxiliaries
3. Operation on Compressor Speed Control
4. Add Load Inlet and Exhaust pressure loss effects:

Effect on	Output	Heat Rate	Exhaust Temp.
100 mm H_2O Inlet	-1.6%	+0.64%	+[illegible] °F
100 mm H_2O Exhaust	-0.6%	+0.60%	+[illegible] °F

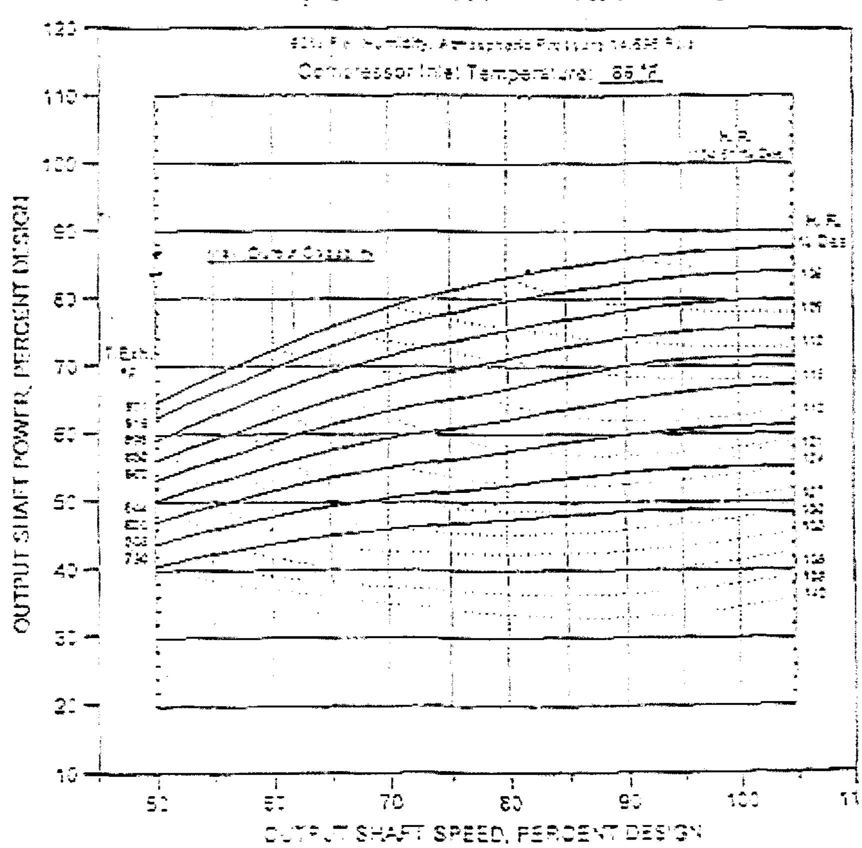


GAS TURBINE MODEL GE10/2 DLE
Estimated Performance, Mechanical Drive Applications

Fuel Type		Natural Gas
Design Output	HP	[illegible]
Design Heat Rate (LHV)	BTU/HP-hr	7337
Design Exhaust Temper.	°F	[illegible]
Design Exhaust Flow	Lb/sec	[illegible]
Output Shaft Des. Speed	RPM	[illegible]
Design Point		Sea Level ISO

NOTES 1. Altitude effects and diagram SOM [illegible] Sh. 2
2. Performance measured at the Power Turbine load coupling with zero inlet and exhaust pressure drops and includes allowances for shaft driven auxiliaries
3. Operation on Compressor Speed Control
4. Additional Inlet and Exhaust pressure loss effects

Effect on	Output	Heat Rate	Exhaust Temp.
100 mm H_2O Inlet	[illegible]	[illegible]	[illegible]
100 mm H_2O Exhaust	[illegible]	[illegible]	[illegible]



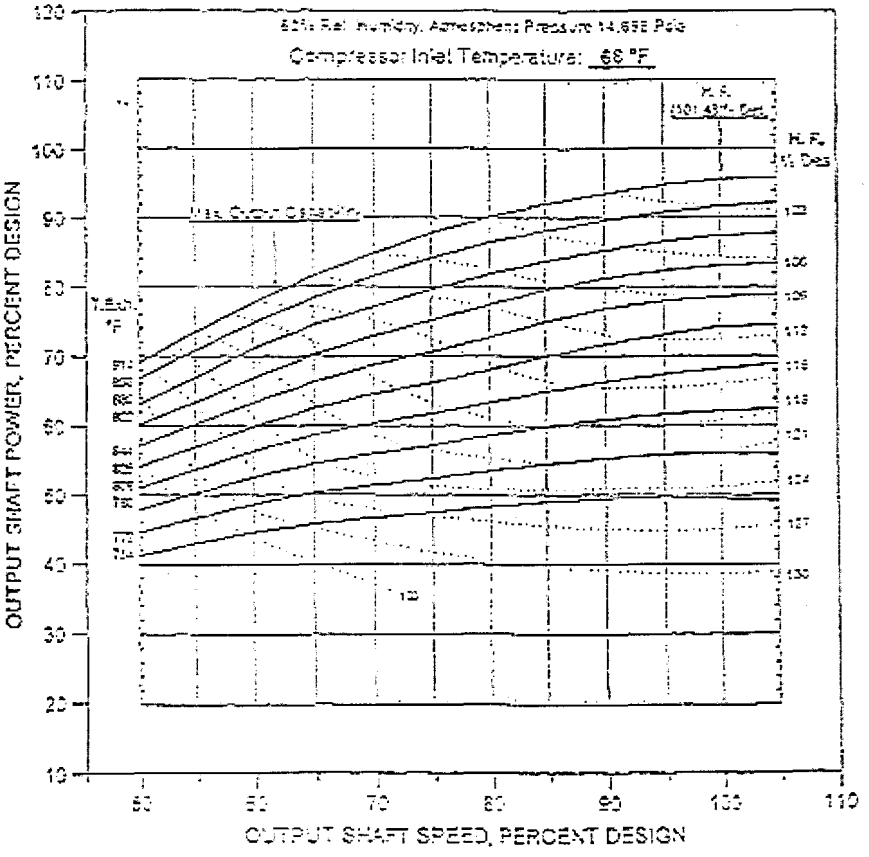
3	REVISIONE - REVISION	ITEM	0805127
2	REVISIONE - REVISION		
1	REVISIONE - REVISION	N.	SOM 47898/4

GAS TURBINE MODEL GE10/2 DLE
Estimated Performance, Mechanical Drive Applications

Fuel Type		Natural Gas
Design Output	HP	15449
Design Heat Rate (LHV)	BTU/HP	7857
Design Exhaust Temper.	°F	935
Design Exhaust Flow	Lb/sec	109.7
Output Shaft Des. Speed	RPM	7,900
Design Point		Sea Level, ISO

NOTES: 1. Above efficiency on diagram SOM 255814 Sh. 2
2. Performance measured at the Power Turbine load coupling with zero inlet and exhaust pressure drops, and includes allowances for shaft driven auxiliaries
3. Operation on Compressor Speed Control
4. Additional Inlet and Exhaust pressure loss effects:

Effect of	Output	Heat Rate	Exhaust Temp.
100 mm H_2O Inlet	-1.6%	+0.64%	+3.5 °F
100 mm H_2O Exhaust	-0.6%	+0.60%	+3.5 °F



3	REVISIONE – REVISION	ITEM 0805127
2	REVISIONE – REVISION	
1	REVISIONE – REVISION	N. SOM 47898/4

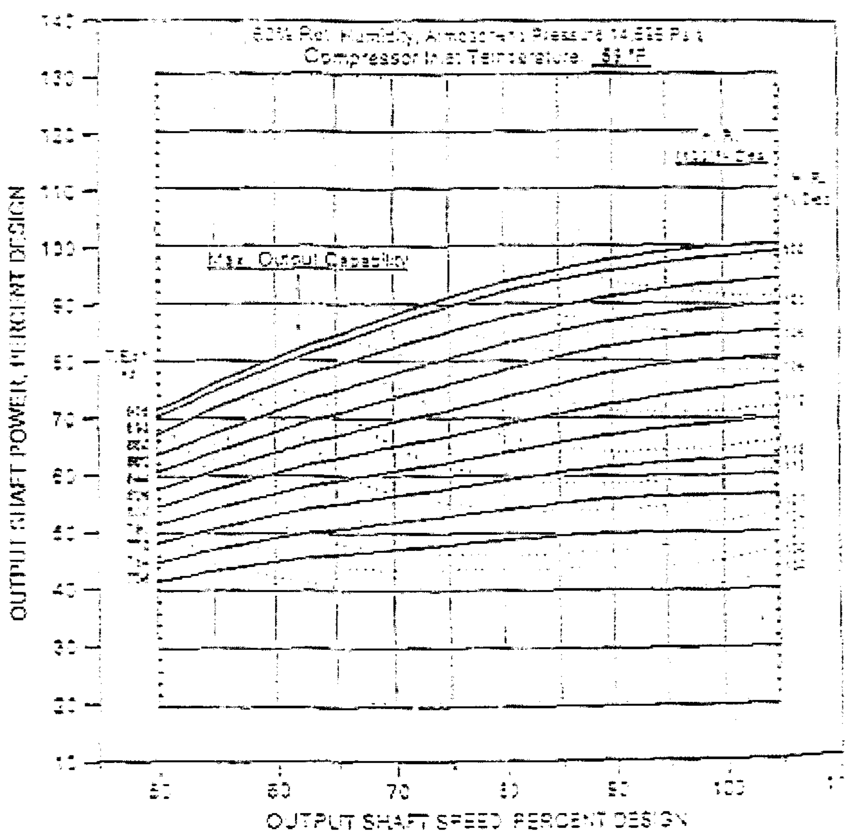
Nuovo Pignone FIRENZE	GE 10/2 Performance Maps Mechanical Drive Applications

GAS TURBINE MODEL GE10/2 DLE
Estimated Performance, Mechanical Drive Applications

Fuel Type		Natural Gas
Design Output	HP	[illegible]
Design Heat Rate (LHV)	BTU/HP	[illegible]
Design Exhaust Temper.	°F	[illegible]
Design Exhaust Flow	Lb/sec	[illegible]
Output Shaft Des Speed	RPM	[illegible]
Design Point		Sea Level [illegible]

NOTES: 1. [illegible]
2. Performance measured at the Power Turbine load coupling with [illegible] exhaust pressure drops, and includes allowances for shaft driven auxiliaries
3. Operation on Compressor Speed Control
4. Additional inlet and Exhaust pressure loss effects:

Effect on	Output	Heat Rate	Exhaust Temp.
100 mm H_2O Inlet	[illegible]	[illegible]	[illegible]
100 mm H_2O Exhaust	[illegible]	[illegible]	[illegible]



3	REVISIONE - REVISION	DATA	0505127
2	REVISIONE - REVISION		
1	REVISIONE - REVISION	N.	SOM 478954