



WOOD GROUP PRATT AND WHITNEY GG4C-1D PERFORMANCE EVALUATION

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ACCEPTANCE TEST LIMITS

CUSTOMER: WGPW **DATE:** 17-Sep-08
ENGINE MODEL: GG4 **TEST SITE:** Plattsburgh
SUB-MODEL: C-1D **WG TEST REP.:** Tim Jones
E/S/N: 686663

PARAMETER		OBSERVED VALUES	OEM LIMITS	
			OEM MAX.	OEM MIN.
Maximum EGT:	Steady State	1225 °F obs	1250 °F obs	N/A
	Idle Spread	130 °F	200 °F	N/A
	EGT Delta	130 °F obs	135 °F obs	N/A
N1		6520 rpm obs	7160 rpm obs	N/A
N2		8486 rpm obs	9350 rpm obs	N/A
Idle Main Oil Pressure		39 psig	N/A	35 psig
Maximum Continuous Oil Pressure		47 psig	50 psig	40 psig
Oil Consumption		0.0 gal/hr	0.2 gal/hr	N/A
Oil Temperature-Stabilized		201 °F	215 °F	185 °F
Breather Pressure-Stabilized		0.39 in. Hg	3.0 in. Hg	N/A
Fuel Inlet Pressure		33.38 psia	50 psia	5 psig
VIBRATION LIMITS-INLET:				
All Pick-ups above 6300 N2 obs.		1.64 mils (p/p)	2.0 mils (p/p)	N/A
All Pick-ups upto 6300 N2 obs.		0.33 mils (p/p)	4.0 mils (p/p)	N/A
VIBRATION LIMITS-DIFFUSER:				
All Pick-ups above 6300 N2 obs.		0.51 mils (p/p)	2.0 mils (p/p)	N/A
All Pick-ups upto 6300 N2 obs.		0.25 mils (p/p)	4.0 mils (p/p)	N/A
VIBRATION LIMITS-EXHAUST:				
All Pick-ups above 6300 N2 obs.		0.44 mils (p/p)	2.0 mils (p/p)	N/A
All Pick-ups upto 6300 N2 obs.		0.26 mils (p/p)	4.0 mils (p/p)	N/A
BLEED VALVE LIMITS-CLOSING				
Bleed Valve Right		80 psig	80 psig	75 psig
Bleed Valve Top		99 psig	100 psig	95 psig
Bleed Valve Left		117 psig	120 psig	115 psig
BLEED VALVE LIMITS-OPENING				
Bleed Valve Right		78 psig	80 psig	74 psig
Bleed Valve Top		97 psig	99 psig	93 psig
Bleed Valve Left		115 psig	117 psig	111 psig

Engineering Analysis Approval: _____

Date: September 18, 2008



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FULL ACCEPTANCE TEST DATA

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WGPW		MODEL: GG4C-1D		E/S/N: 686663		DATE: 17-Sep-08	
PARAMETER	EPR	1.116	3.178	3.054	2.946	2.852	2.771
Time	hr:min	9:29	8:48	8:52	9:20	9:22	9:25
Dry Bulb	F	58	54	54.75	57	57	57
Wet Bulb	F	53	49	49.75	52	52	52
Baro	inHg	30.14	30.14	30.14	30.14	30.14	30.14
Cell Dep.	insH2O	-0.277	-2.936	-2.659	-2.798	-2.770	-2.327
P ref	psia	14.80	14.73	14.73	14.73	14.73	14.74
T2	°C	14.44	12.22	12.64	13.89	13.89	13.89
T2	°F	58	54	54.75	57	57	57
PT2	psia	14.80	14.70	14.71	14.71	14.71	14.73
Ps3	psia	17.60	63.73	61.73	60.63	59.13	57.94
Ps4	psia	40.00	195.53	188.13	181.63	176.23	171.34
PT7	psia	16.52	46.73	44.93	43.33	41.96	40.80
PT7	in Hg	33.62	95.10	91.43	88.18	85.39	83.03
Fuel Press	psig	33	6	6	7	9	11
Fuel Tmp	°F	68	60	61	62	62	65
N1	rpm	2972	6520	6370	6276	6181	6102
N2	rpm	6036	8486	8404	8356	8297	8249
Main Oil Temp	°F	188	191	201	188	194	196
Main Oil Press	psig	39.20	47.30	46.60	46.90	46.50	46.10
Breather Press	in Hg	0.12	0.39	0.37	0.37	0.35	0.35
Inlet Vibration	p/p	0.33	1.33	1.62	1.64	1.27	0.95
Diffuser Vibration	p/p	0.25	0.51	0.48	0.47	0.25	0.30
Exhaust Vibration	p/p	0.26	0.33	0.38	0.44	0.35	0.33
Fuel Flow Uncorr	p/h	612	4456	4126	3938	3711	3546
EGT Avg.	°F	582	1225	1174	1154	1112	1083
EGT Spread	°F	130	108	101	98	106	97
EGT 1	°F	516	1173	1128	1103	1056	1031
EGT 2	°F	581	1211	1160	1144	1102	1074
EGT 3	°F	583	1281	1229	1201	1162	1128
EGT 4	°F	646	1230	1176	1157	1114	1086
EGT 5	°F	607	1253	1199	1186	1147	1115
EGT 6	°F	561	1203	1151	1134	1090	1061

CORRECTED, CALCULATED DATA

EPR		1.116	3.178	3.054	2.946	2.852	2.771
N1	rpm	2976	6554	6399	6290	6195	6116
N2	rpm	6044	8530	8441	8375	8316	8268
FUEL FLOW	p/h	608	4451	4119	3934	3707	3539
EGT	°C	307	674	640	628	604	587
EGT	°R	1045	1705	1648	1621	1579	1549
Ps3/Pt2		1.19	4.33	4.20	3.00	2.98	2.96
Ps4/Pt2		2.70	13.30	12.79	12.35	11.98	11.64



WOOD GROUP TURBINE PRATT AND WHITNEY GG4C-1D PERFORMANCE EVALUATION

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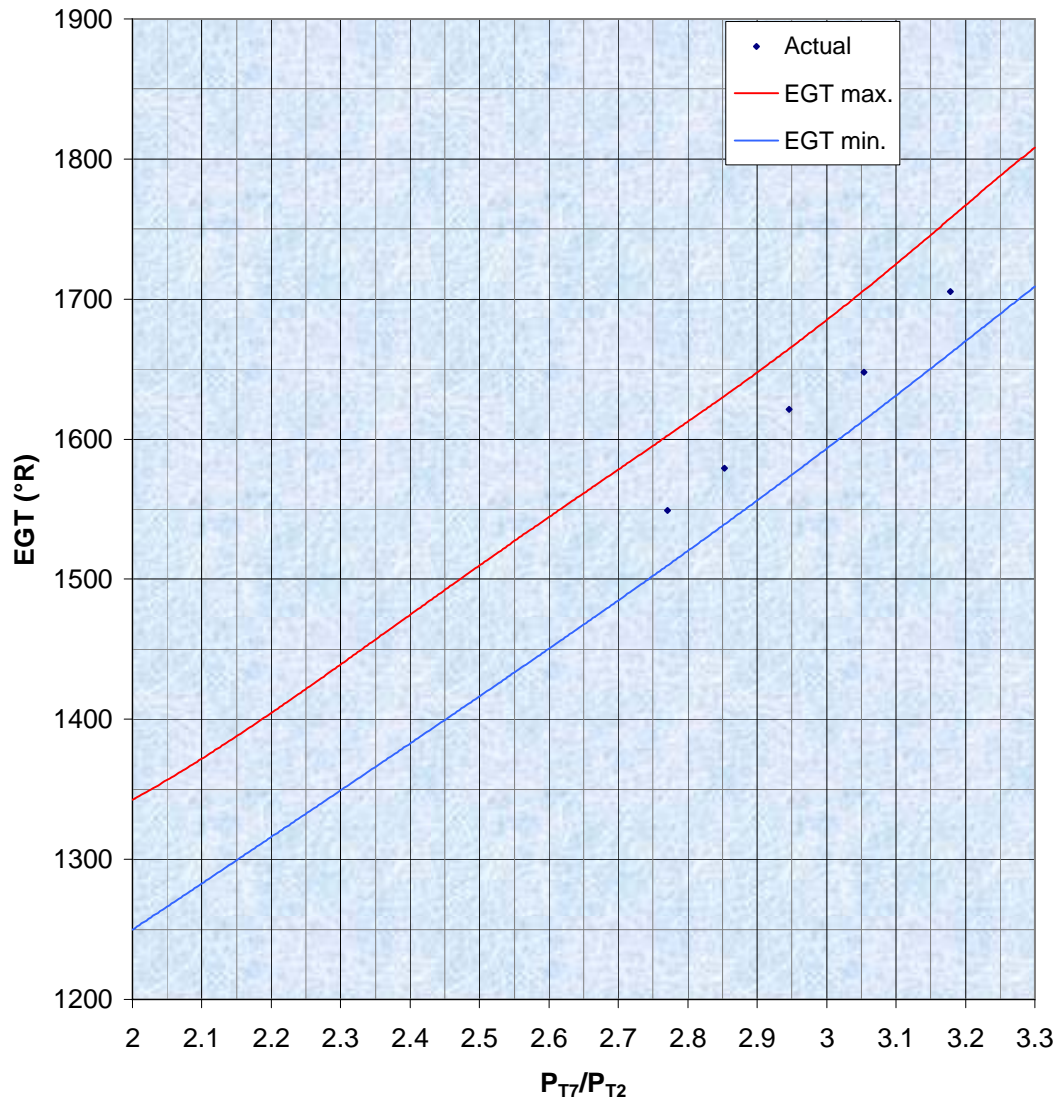
WGPW

MODEL: GG4C-1D

E/S/N: 686663

DATE: 17-Sep-08

Generator Match Limits (GG4C-1D)



Reference: Pratt & Whitney GG4C Overhaul Manual P/N 729003, Section 1-00-1 Figure 703A



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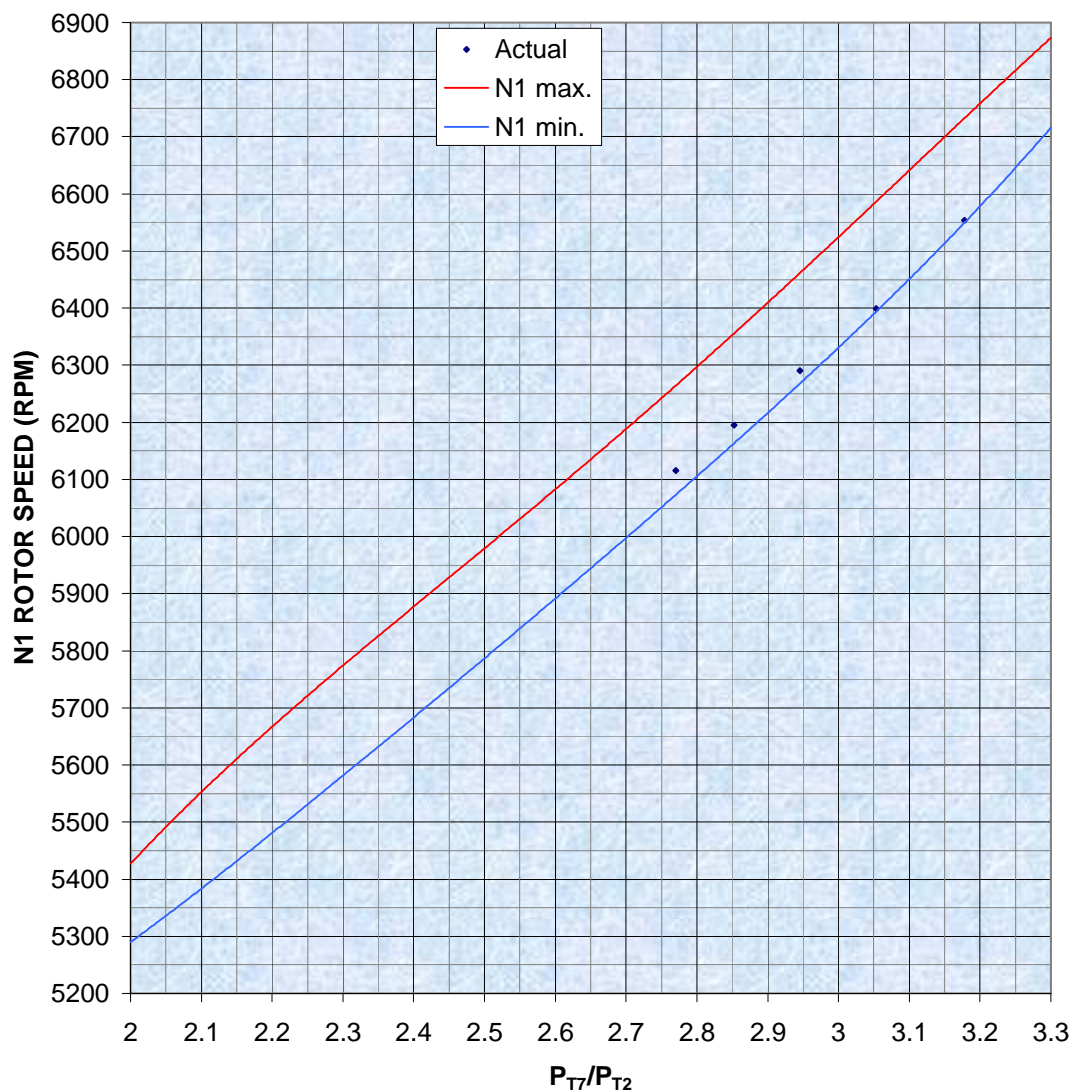
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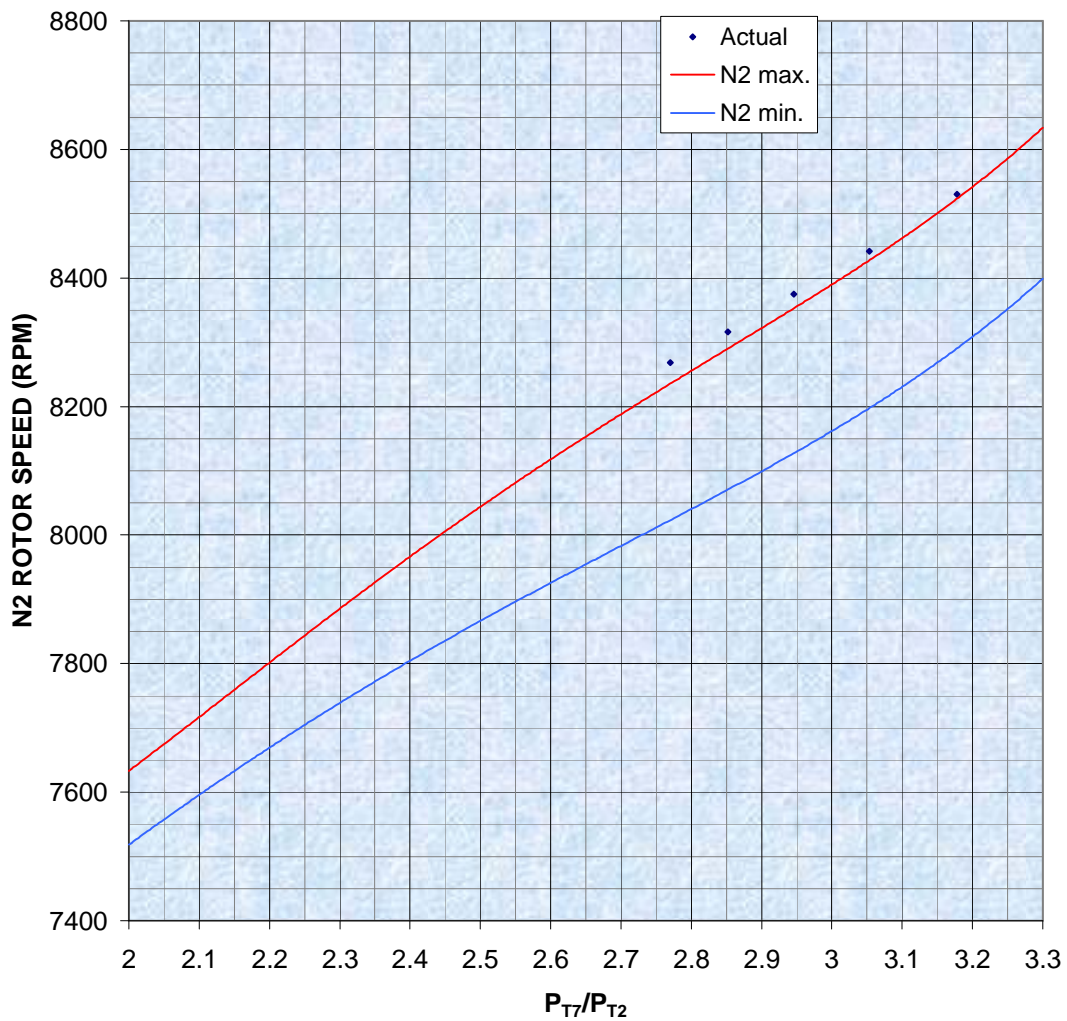
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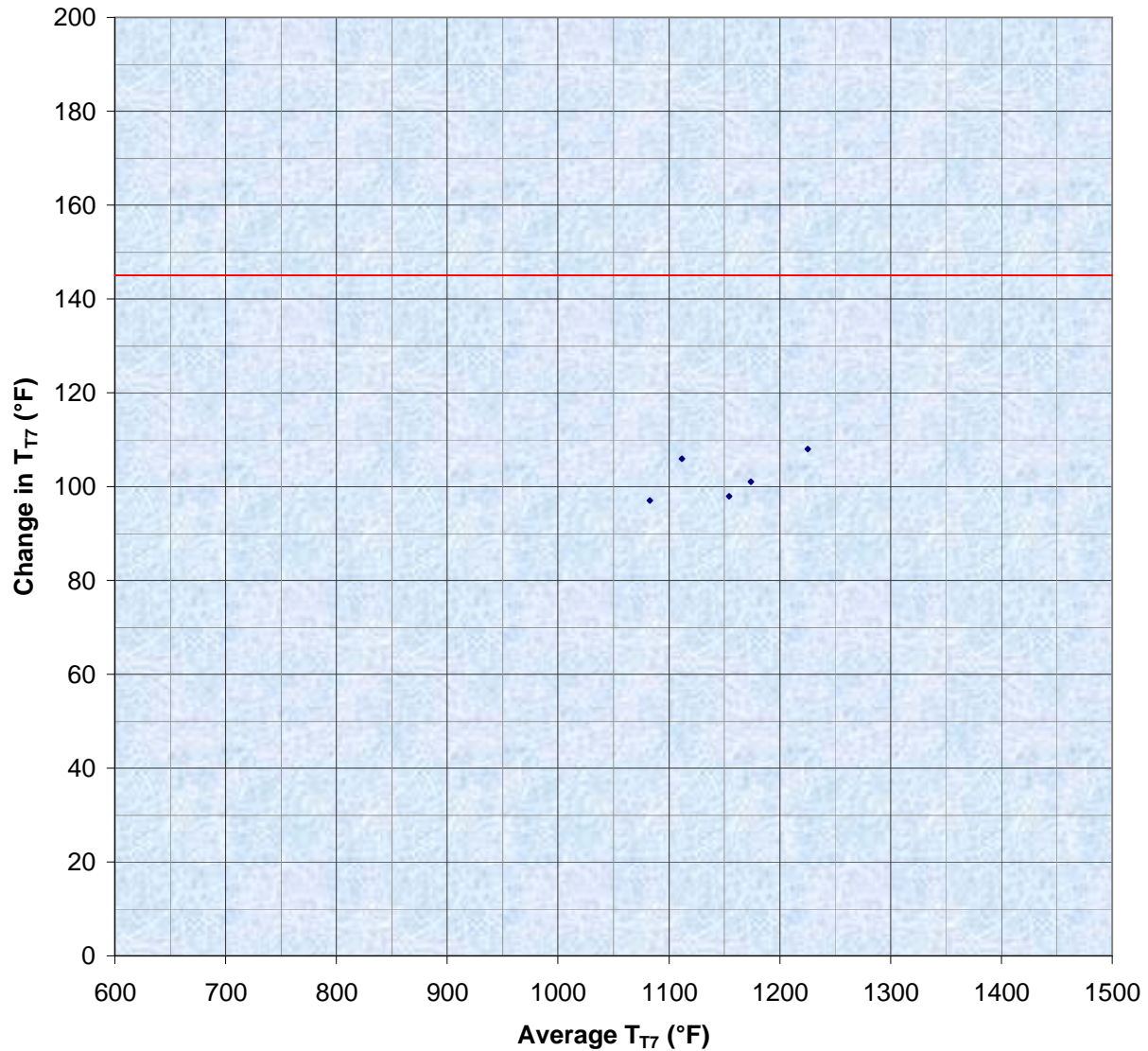
WGPW

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Exhaust Gas Temperature Spread Check



Reference: Pratt & Whitney GG4C Overhaul Manual P/N 729003, Section 1-00-1 Figure 707

