



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

**\*\* DATA SUPERSEDED \*\* SEE SHEET: 8GE105**

ENGINE IDENTIFICATION: CF34-8E5A1 BYPASS RATIO: 5.13  
UNIQUE ID NUMBER: 6GE095 PRESSURE RATIO ( $\pi_{00}$ ): 24.12  
ENGINE TYPE: TF RATED OUTPUT ( $F_{00}$ ) (kN): 62.49

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	0.4	39.8	44.9	17.6
AS % OF ORIGINAL LIMIT	2.0 %	33.7 %	50.9 %	65.4 %
AS % OF CAEP/2 LIMIT (NOx)			63.6 %	
AS % OF CAEP/4 LIMIT (NOx)			71.1 %	
AS % OF CAEP/6 LIMIT (NOx)			75.9 %	
AS % OF CAEP/8 LIMIT (NOx)			85.4 %	

### DATA STATUS

- PRE-REGULATION  
x CERTIFICATION  
- REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
- DEDICATED ENGINES TO PRODUCTION STANDARD  
- OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
(ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
x OUT OF PRODUCTION (DATE: - )  
- OUT OF SERVICE

### MEASURED DATA

MODE	POWER SETTING (% $F_{00}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.691	0.02	0.71	15.81	13.64
CLIMB OUT	85	2.2	0.563	0.02	0.57	13.15	3.9
APPROACH	30	4.0	0.188	0.06	4.05	11.06	0
IDLE	7	26.0	0.066	0.13	17.3	4.7	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			251	18	2027	2419	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				0.29	32.43	38.71	13.64
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-
RANGE ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.1 - 98.1
TEMPERATURE (K)	284 - 292
ABS HUMIDITY (kg/kg)	.00470 - .00727

### FUEL

SPEC	Jet A
H/C	1.937
AROM (%)	18

MANUFACTURER: GE Aircraft Engines  
TEST ORGANIZATION: Peebles Test Organisation  
TEST LOCATION: Peebles, Ohio  
TEST DATES: FROM 27 Jan 02 TO 28 Jan 02

### REMARKS

1. GE Report R2001AE078
2. Engine S/N 193111
3. LEC combustor
4. Minor change to climb SN (3.9 to 3.49) in Issue 15

If REVISED, this data supersedes databank UID  
Compliance with fuel venting requirements: 0 ('x' if complies, PR if pre-regulation)