



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-10E6A1  
UNIQUE ID NUMBER: 8GE118  
COMBUSTOR: SAC  
ENGINE TYPE: TF

BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 27.3  
RATED THRUST ( $F_{00}$ ) (kN): 83.7

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	11.1	94.3	46.3	9.0
AS % OF ORIGINAL LIMIT	56.4	79.9	48.9	36.3
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			61.1	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			72.5	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			81.3	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			95.5	

### DATA STATUS

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

### TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES  
x 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: 2007 )  
- OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.871	0.01	0.52	20.45	7.0
CLIMB OUT	85	2.2	0.720	0.05	0.39	16.88	2.9
APPROACH	30	4.0	0.244	0.06	3.37	8.14	0.5
IDLE	7	26.0	0.088	4.30	44.93	3.72	0.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			328	601	6430	3341	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				7.2	76.8	39.9	7.0
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				1.1	5.1	1.5	1.2
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				6.8-7.5	74.4-78.4	39.3-40.5	44355.0

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW)  
STAGE BLEED 0 (% CORE FLOW)

AT All POWER SETTINGS  
AT All POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.4-98.6
TEMPERATURE (K)	294-295
ABS HUMIDITY (kg/kg)	0.00922-0.01192

### FUEL

SPEC	Jet A-1
H/C	1.92-1.93
AROM (%)	18.1-19.3

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: Peebles Test Operation  
TEST LOCATION: Site 4D  
TEST DATES: 24/07/2004-25/07/2004

### REMARKS

1. GE Reports R2004AE636 and R2006AE173
2. Block 1 Engines
3. Engine 994-110/1

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)