



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-8E5 BYPASS RATIO: 5.13  
 UNIQUE ID NUMBER: 8GE108 PRESSURE RATIO ( $\pi_{00}$ ): 23.18  
 ENGINE TYPE: TF RATED OUTPUT ( $F_{00}$ ) (kN): 59.68

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	0.5	42.5	43.2	11.1
AS % OF ORIGINAL LIMIT	2.4 %	36.0 %	50.0 %	40.7 %
AS % OF CAEP/2 LIMIT (NOx)			62.5 %	
AS % OF CAEP/4 LIMIT (NOx)			69.4 %	
AS % OF CAEP/6 LIMIT (NOx)			73.6 %	
AS % OF CAEP/8 LIMIT (NOx)			82.5 %	

### 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)  
 - OUT OF PRODUCTION  
 - OUT OF SERVICE

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.652	0.02	0.64	14.77	8.63
CLIMB OUT	85	2.2	0.533	0.02	0.57	12.65	2.24
APPROACH	30	4.0	0.180	0.06	4.23	10.77	0
IDLE	7	26.0	0.064	0.13	18.16	4.61	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			241	18	2066	2223	-
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)				0.31	34.62	37.25	8.63
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				-	-	-	-
RANGE (D <sub>p</sub> /F <sub>00</sub> 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 to 98.1
TEMPERATURE (K)	284 to 292
ABS HUMIDITY (kg/kg)	0.00470 to 0.00727

### FUEL

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

MANUFACTURER: GE  
 TEST ORGANIZATION: CF6 Eval Engineering  
 TEST LOCATION: PTO Site 3B Peebles  
 TEST DATES: FROM 27 Jan 02 TO 28 Jan 02

### REMARKS

1. Ref. GE REPORT R2001AE078
2. Engine S/N 193111
3. Data corrected per ICAO Annex 16, Vol 2, Part III, Appendix 3
4. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
5. NOx levels in accordance with Part III, Chapter 2, 2.3.2 e)

If REVISED, this data supersedes databank UID  
 Compliance with fuel venting requirements:

- ('x' if complies, PR if pre-regulation)