



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-50E1  
UNIQUE ID NUMBER: 3GE076  
COMBUSTOR: Low emissions fuel nozzle  
ENGINE TYPE: TF  
BYPASS RATIO: 4.3  
PRESSURE RATIO ( $\pi_{00}$ ): 28.4  
RATED THRUST ( $F_{00}$ ) (kN): 230.4

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	5.3	36.6	59.8	16.1
AS % OF ORIGINAL LIMIT	27.0	31.0	61.7	85.5
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			77.2	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			92.7	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			105.3	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			124.8	

### 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 (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	2.361	0.14	0.45	28.97	11.0
CLIMB OUT	85	2.2	1.940	0.15	0.45	25.50	11.7
APPROACH	30	4.0	0.663	0.28	3.71	10.16	1.6
IDLE	7	26.0	0.163	2.72	24.04	3.40	1.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			769	788	6863	11884	-
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)				3.4	29.8	51.6	12.5
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.2	0.4	2.8	1.8
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				3.28-3.58	29.42-30.28	49.71-54.8	10.68-14

### ACCESSORY LOADS

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

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.7-97.9
TEMPERATURE (K)	292.3-301.3
ABS HUMIDITY (kg/kg)	0.0127-0.0216

### FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	16.3

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: GE Development/Production Test Operation  
TEST LOCATION: Site IVD, Peebles, Ohio  
TEST DATES: 28/07/1987-29/07/1987

### REMARKS

1. Engine equipped with low emissions fuel nozzle config.
2. GE Report R87AEB559.
3. Engine 530375/001.
4. Idle emissions calculated at normal idle setting rather than 7%.

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)