



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-3A/A1/A2/B1/B2      BYPASS RATIO: 6.3  
UNIQUE ID NUMBER: 07P05GE220      PRESSURE RATIO ( $\pi_{co}$ ): 19.3  
COMBUSTOR: SAC  
ENGINE TYPE: TF      RATED THRUST ( $F_{oo}$ ) (kN): 41.0

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>oo</sub> (g/kN) or SN	13.7	110.1	30.5	23.6
AS % OF ORIGINAL LIMIT	69.9	93.3	38.8	78.1
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			48.5	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			50.9	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			52.1	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			56.4	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

### 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 (DATE: - )  
- OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>oo</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	0.399	0.06	0.00	11.28	18.3
CLIMB OUT	85	2.2	0.329	0.05	0.00	9.68	9.2
APPROACH	30	4.0	0.116	0.13	1.88	6.63	3.1
IDLE	7	26.0	0.049	4.69	47.59	3.72	3.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			164	366	3683	1078	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX)				8.9	89.7	26.3	18.3
SIGMA (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)							

### ACCESSORY LOADS

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

AT - POWER SETTINGS  
AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.6-102.9
TEMPERATURE (K)	275.5-281.1
ABS HUMIDITY (kg/kg)	0.0016-0.0039

### FUEL

SPEC	Jet A
H/C	1.92
AROM (%)	20.3

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: General Electric Company  
TEST LOCATION: Lynn Cell 121  
TEST DATES: 21/03/1991-25/03/1991

### NO<sub>x</sub> REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

### REMARKS

1. Ref. GE Report R95AEB012
2. Engine S/N 807-005
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. NO<sub>x</sub> levels in accordance with Part III, Chapter 2, 2.3.2 e)

Compliance with Fuel Venting requirements:

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