



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2A8  
UNIQUE ID NUMBER: 1GE021  
COMBUSTOR:  
ENGINE TYPE: TF  
BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 31.0  
RATED THRUST ( $F_{00}$ ) (kN): 257.4

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	15.1	62.0	50.4	9.6
AS % OF ORIGINAL LIMIT	77.0	52.5	49.4	52.6
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			61.7	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			73.0	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			82.6	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			96.7	

### 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	2.507	0.08	0.52	33.50	8.2
CLIMB OUT	85	2.2	1.953	0.09	0.52	22.00	4.9
APPROACH	30	4.0	0.655	0.20	2.05	9.00	2.3
IDLE	7	26.0	0.205	9.20	42.30	3.70	3.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			840	3005	14039	11797	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				11.6	54.4	45.8	8.2
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				1.3	3.1	1.8	
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				10.52-13	51.75-57.31	44.33-47.72	

### ACCESSORY LOADS

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

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.4-97.8
TEMPERATURE (K)	287-296
ABS HUMIDITY (kg/kg)	0.0084-0.014

### FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.3

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: CF6 Eval Engineering  
TEST LOCATION: Site IIIC, PTO, Peebles, Ohio  
TEST DATES: 29/05/1985-03/06/1985

### REMARKS

1. Ref GE Report R90AEB379. Engine S/N's 690105 and 690005/2.

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