



## ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-10A16/16-B BYPASS RATIO: 5.7  
UNIQUE ID NUMBER: 01P11GE202 PRESSURE RATIO ( $\pi_{co}$ ): 25.1  
COMBUSTOR: SAC  
ENGINE TYPE: TF RATED THRUST ( $F_{oo}$ ) (kN): 76.9

## REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>oo</sub> (g/kN) or SN	18.4	111.9	40.6	14.2
AS % OF ORIGINAL LIMIT	93.9	94.8	45.0	55.8
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			56.3	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			65.8	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			73.0	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			84.3	

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

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

## MEASURED DATA

MODE	POWER SETTING (%F <sub>oo</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.765	0.06	0.49	17.87	11.1
CLIMB OUT	85	2.2	0.632	0.08	0.34	15.04	5.1
APPROACH	30	4.0	0.219	0.14	3.98	7.97	0.1
IDLE	7	26.0	0.083	6.96	52.05	3.45	0.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			298	919	7014	2696	-
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)				11.9	91.2	35.0	11.1
SIGMA (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)				0.6	1.9	0.4	0.6
RANGE (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)				11.2-12.3	89.4-93.2	34.6-35.4	10.5-11.7

## ACCESSORY LOADS

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

## ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.2-97.9
TEMPERATURE (K)	296-300
ABS HUMIDITY (kg/kg)	0.0099-0.0127

## FUEL

SPEC	Jet A-1
H/C	1.92
AROM (%)	16.3-17.4

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: Peebles Test Operation  
TEST LOCATION: Site 4D  
TEST DATES: 05/09/2006-10/09/2006

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

- GE Report R2007AE480Engine 994-251/1
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO<sub>x</sub> levels in accordance with Part III, Chapter 2, 2.3.2 e)

Compliance with Fuel Venting requirements:

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