



## ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-10A18  
UNIQUE ID NUMBER: 11GE141  
COMBUSTOR: 2253M21  
ENGINE TYPE: TF

BYPASS RATIO: 5.4  
PRESSURE RATIO ( $\pi_{00}$ ): 26.5  
RATED THRUST ( $F_{00}$ ) (kN): 82.1

## REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	14.6	98.5	43.3	19.0
AS % OF ORIGINAL LIMIT	74.5	83.5	46.6	76.1
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			58.2	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			68.9	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			78.0	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			90.2	

## 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)  
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	0.826	0.05	0.66	19.47	14.7
CLIMB OUT	85	2.2	0.684	0.08	0.36	16.72	7.0
APPROACH	30	4.0	0.232	0.13	3.43	8.26	0.1
IDLE	7	26.0	0.086	5.67	47.29	3.58	0.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			315	776	6589	3070	-
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)				9.5	80.2	37.4	14.7
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.6	1.8	0.4	0.3
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				8.8-9.8	78.8-82.3	36.9-37.7	14.5-15.1

## ACCESSORY LOADS

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

AT All POWER SETTINGS  
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

1. GE Report R2007AE480Engine 994-251/1
2. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
3. 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)