



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: GENx-1B74/75/P1  
UNIQUE ID NUMBER: 12GE155  
COMBUSTOR: TAPS  
ENGINE TYPE: TF

BYPASS RATIO: 8.8  
PRESSURE RATIO ( $\pi_{00}$ ): 46.0  
RATED THRUST ( $F_{00}$ ) (kN): 341.2

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	0.8	22.9	51.9	9.8
AS % OF ORIGINAL LIMIT	4.0	19.4	39.3	58.0
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			49.1	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			52.4	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			57.0	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			63.2	

### DATA STATUS

- PRE-REGULATION  
x CERTIFICATION  
- REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x 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	2.709	0.03	0.17	44.96	0.0
CLIMB OUT	85	2.2	2.202	0.02	0.19	23.36	0.0
APPROACH	30	4.0	0.703	0.05	2.09	10.30	6.7
IDLE	7	26.0	0.226	0.44	16.86	4.61	0.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			926	173	6367	15268	-
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)				0.5	18.7	44.8	7.6
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.0	0.4	0.4	2.1
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.49-0.54	18.33-19.02	44.26-45.11	5.26-8.96

### ACCESSORY LOADS

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

AT All POWER SETTINGS  
AT All POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.4-98.6
TEMPERATURE (K)	280.5-299
ABS HUMIDITY (kg/kg)	0.00345-0.00716

### FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	15.3

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: General Electric Company  
TEST LOCATION: PTO, Ohio  
TEST DATES: 29/09/2009-03/10/2009

### 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 R2010AE595
2. Engine S/N 956-108/2
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) (CAEP/8)

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