



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: GENx-1B54/P2  
UNIQUE ID NUMBER: 01P17GE204  
COMBUSTOR: TAPS  
ENGINE TYPE: TF

BYPASS RATIO: 9.4  
PRESSURE RATIO ( $\pi_{00}$ ): 35.5  
RATED THRUST ( $F_{00}$ ) (kN): 255.3

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	1.2	28.5	28.9	0.8
AS % OF ORIGINAL LIMIT	6.1	24.1	26.1	4.1
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			32.6	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			37.1	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			41.4	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			47.4	

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  
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>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	1.880	0.02	0.32	17.22	0.1
CLIMB OUT	85	2.2	1.554	0.02	1.73	11.54	0.1
APPROACH	30	4.0	0.527	0.06	2.81	9.27	0.0
IDLE	7	26.0	0.203	0.58	16.39	4.66	0.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			727	197	5928	6374	-
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)				0.8	23.2	25.0	0.6
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.1	0.1	0.1	0.3
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.7-0.83	23.11-23.29	24.88-25.06	0.35-0.97

### ACCESSORY LOADS

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

AT All POWER SETTINGS  
AT All POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.1-98.5
TEMPERATURE (K)	295.1-298.8
ABS HUMIDITY (kg/kg)	0.01189-0.01439

### FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	15.4

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: General Electric Company  
TEST LOCATION: PTO, Ohio  
TEST DATES: 19/06/2012-21/06/2012

### 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 R2010AE907
2. Engine S/N 956-101/4
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)