



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

\*\* DATA SUPERSEDED \*\* SEE SHEET: 17GE181

ENGINE IDENTIFICATION: GENx-2B67/P BYPASS RATIO: 8.0  
UNIQUE ID NUMBER: 13GE158 PRESSURE RATIO ( $\pi_{00}$ ): 43.6  
ENGINE TYPE: TF RATED OUTPUT ( $F_{00}$ ) (kN): 299.8

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	0.8	21.3	48.4	0.8
AS % OF ORIGINAL LIMIT	4.0 %	18.0 %	38.1 %	4.0 %
AS % OF CAEP/2 LIMIT (NOx)			47.6 %	
AS % OF CAEP/4 LIMIT (NOx)			51.4 %	
AS % OF CAEP/6 LIMIT (NOx)			56.2 %	
AS % OF CAEP/8 LIMIT (NOx)			62.6 %	

### 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  
- OUT OF SERVICE

### MEASURED DATA

MODE	POWER SETTING (% $F_{00}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.453	0.02	0.07	34.21	0
CLIMB OUT	85	2.2	2.009	0.02	0.17	21.1	0
APPROACH	30	4.0	0.642	0.04	1.78	11.11	0.97
IDLE	7	26.0	0.219	0.41	14.28	4.92	0.97
LTO TOTAL FUEL (kg) or EMISSIONS (g)			864	154	5201	12509	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				0.51	17.35	41.72	0.58
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				0.03	0.021	0.262	0.34
RANGE ( $D_p/F_{00}$ in g/kN, or SN)				0.48-0.55	17.32-17.36	41.46-41.98	0.35-0.97

### ACCESSORY LOADS

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

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.1 - 98.5
TEMPERATURE (K)	295.1 to 298.8
ABS HUMIDITY (kg/kg)	.01189 to .01439

### FUEL

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

MANUFACTURER: GE Aviation  
TEST ORGANIZATION: GE Aviation  
TEST LOCATION: PTO, Ohio, USA  
TEST DATES: FROM 19 Jun 12 TO 21 Jun 12

### REMARKS

1. Ref. GE REPORT R2011AE578
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. NOx levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

If REVISED, this data supersedes databank UID  
Compliance with fuel venting requirements: x ('x' if complies, PR if pre-regulation)