



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GENx-1B64/P2
UNIQUE ID NUMBER: 13GE165
ENGINE TYPE: TF

BYPASS RATIO: 9.01
PRESSURE RATIO (π_{00}): 40.9
RATED OUTPUT (F_{00}) (kN): 298

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	1.0	22.9	37.9	0.8
AS % OF ORIGINAL LIMIT	5.1 %	19.4 %	31.1 %	4.3 %
AS % OF CAEP/2 LIMIT (NOx)			38.9 %	
AS % OF CAEP/4 LIMIT (NOx)			42.7 %	
AS % OF CAEP/6 LIMIT (NOx)			46.9 %	
AS % OF CAEP/8 LIMIT (NOx)			52.7 %	

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
TAKE-OFF	100	0.7	2.273	0.02	0.09	27.12	0
CLIMB OUT	85	2.2	1.863	0.02	0.34	16.85	0
APPROACH	30	4.0	0.609	0.05	2.11	10.39	0.32
IDLE	7	26.0	0.204	0.56	16.13	4.69	0.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			806	191	5544	9747	-
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)				0.64	18.61	32.71	0.58
SIGMA (D_p/F_{00} in g/kN, or SN)				0.05	0.029	0.201	0.34
RANGE (D_p/F_{00} in g/kN, or SN)				0.58-0.69	18.58-18.64	32.50-32.90	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 to 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 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. 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)