



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GENx-1B75/P1
UNIQUE ID NUMBER: 12GE156
ENGINE TYPE: TF

BYPASS RATIO: 8.8
PRESSURE RATIO (π_{oo}): 46.5
RATED OUTPUT (F_{oo}) (kN): 345.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	0.8	22.5	54.0	9.8
AS % OF ORIGINAL LIMIT	4.0 %	19.0 %	40.6 %	58.1 %
AS % OF CAEP/2 LIMIT (NOx)			50.8 %	
AS % OF CAEP/4 LIMIT (NOx)			54.0 %	
AS % OF CAEP/6 LIMIT (NOx)			58.8 %	
AS % OF CAEP/8 LIMIT (NOx)			65.0 %	

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_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.753	0.03	0.17	47.53	0
CLIMB OUT	85	2.2	2.234	0.02	0.19	24.34	0
APPROACH	30	4.0	0.711	0.05	2.03	10.42	6.8
IDLE	7	26.0	0.227	0.43	16.63	4.64	0.08
LTO TOTAL FUEL (kg) or EMISSIONS (g)			936	170	6318	16093	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				0.49	18.3	46.62	7.6
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.03	0.34	0.46	2.05
RANGE (D_p/F_{oo} in g/kN, or SN)				0.47-0.52	17.98-18.66	46.11-47.00	5.26-8.96

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.4 to 98.6
TEMPERATURE (K)	280.5 to 299.0
AHS HUMIDITY (kg/kg)	0.00345 to 0.00716

FUEL

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

MANUFACTURER: GE Aviation
TEST ORGANIZATION: GE Aviation
TEST LOCATION: PTO, Ohio, USA
TEST DATES: FROM 29 Sep 09 TO 03 Oct 09

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. 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)