



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:GENx-1B75/P2

UNIQUE ID NUMBER:17GE178

ENGINE TYPE:TF

BYPASS RATIO:8.6

PRESSURE RATIO (π_{oo}):47.0

RATED OUTPUT (F_{oo}) (kN):345.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	0.6	17.8	55.2	0.8
AS % OF ORIGINAL LIMIT	3.3 %	15.1 %	41.2 %	4.5 %
AS % OF CAEP/2 LIMIT (NOx)			51.5 %	
AS % OF CAEP/4 LIMIT (NOx)			54.7 %	
AS % OF CAEP/6 LIMIT (NOx)			59.4 %	
AS % OF CAEP/8 LIMIT (NOx)			65.6 %	

DATA STATUS

-PRE-REGULATION

x-CERTIFICATION

-REVISED (SEE REMARKS)

TEST ENGINE STATUS

xNEWLY MANUFACTURED ENGINES

xDEDICATED ENGINES TO PRODUCTION STANDARD

-OTHER (SEE REMARKS)

EMISSIONS STATUS

xDATA 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	2.746	0.03	0.05	44.61	0.2
CLIMB OUT	85	2.2	2.229	0.02	0.1	25.83	0.16
APPROACH	30	4.0	0.701	0.04	1.57	11.67	0.4
IDLE	7	26.0	0.222	0.37	13.62	5.01	0.07
LTO TOTAL FUEL (kg) or EMISSIONS (g)			924	143	5014	16439	-
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)				0.41	14.53	47.62	0.58
SIGMA (D _p /F _{oo} in g/kN, or SN)				0.02	0.021	0.313	0.34
RANGE (D _p /F _{oo} in g/kN, or SN)				0.39-0.44	14.50-14.54	47.31-4794	0.35-0.97

ACCESSORY LOADS

POWER EXTRACTION0(kW)ATALLPOWER SETTINGS

STAGE BLEED0% CORE FLOWATALLPOWER 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:FROM19 Jun 12TO21 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)