



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:GENx-1B74/75/P2

UNIQUE ID NUMBER:17GE177

ENGINE TYPE:TF

BYPASS RATIO:8.7

PRESSURE RATIO (π_{oo}):46.4

RATED OUTPUT (F_{oo}) (kN):341.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	0.7	18.2	53.4	0.8
AS % OF ORIGINAL LIMIT	3.4 %	15.4 %	40.2 %	4.4 %
AS % OF CAEP/2 LIMIT (NOx)			50.2 %	
AS % OF CAEP/4 LIMIT (NOx)			53.5 %	
AS % OF CAEP/6 LIMIT (NOx)			58.2 %	
AS % OF CAEP/8 LIMIT (NOx)			64.4 %	

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	2.704	0.02	0.05	42.71	0.2
CLIMB OUT	85	2.2	2.196	0.02	0.11	24.9	0.16
APPROACH	30	4.0	0.693	0.04	1.61	11.56	0.37
IDLE	7	26.0	0.221	0.38	13.8	4.99	0.07
LTO TOTAL FUEL (kg) or EMISSIONS (g)			914	145	5054	15707	-
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)				0.43	14.8	46.03	0.58
SIGMA (D _p /F _{oo} in g/kN, or SN)				0.02	0.02	0.301	0.34
RANGE (D _p /F _{oo} in g/kN, or SN)				0.40-0.45	14.78-14.82	45.74-46.34	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)