



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:GENx-1B70/P2

UNIQUE ID NUMBER:17GE176

ENGINE TYPE:TF

BYPASS RATIO:8.8

PRESSURE RATIO (π_{oo}):43.9

RATED OUTPUT (F_{oo}) (kN):321.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	0.8	20.1	45.5	0.8
AS % OF ORIGINAL LIMIT	4.0 %	17.0 %	35.6 %	4.4 %
AS % OF CAEP/2 LIMIT (NOx)			44.5 %	
AS % OF CAEP/4 LIMIT (NOx)			48.0 %	
AS % OF CAEP/6 LIMIT (NOx)			52.5 %	
AS % OF CAEP/8 LIMIT (NOx)			58.4 %	

DATA STATUS

-PRE-REGULATION

xCERTIFICATION

-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	2.504	0.02	0.06	34.77	0.18
CLIMB OUT	85	2.2	2.042	0.02	0.17	20.87	0.15
APPROACH	30	4.0	0.654	0.05	1.82	11.02	0.25
IDLE	7	26.0	0.213	0.44	14.78	4.85	0.06
LTO TOTAL FUEL (kg) or EMISSIONS (g)			865	162	5256	12629	-
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)				0.5	16.34	39.27	0.58
SIGMA (D _p /F _{oo} in g/kN, or SN)				0.04	0.022	0.25	0.34
RANGE (D _p /F _{oo} in g/kN, or SN)				0.47-0.54	16.32-16.36	39.02-39.52	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)