



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GEnx-1B54/P2
UNIQUE ID NUMBER: 13GE167
ENGINE TYPE: TF

BYPASS RATIO: 9.39
PRESSURE RATIO (π_{00}): 35.5
RATED OUTPUT (F_{00}) (kN): 255.3

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	1.2	28.5	28.9	0.8
AS % OF ORIGINAL LIMIT	6.1 %	24.1 %	26.1 %	4.1 %
AS % OF CAEP/2 LIMIT (NOx)			32.6 %	
AS % OF CAEP/4 LIMIT (NOx)			37.1 %	
AS % OF CAEP/6 LIMIT (NOx)			41.4 %	
AS % OF CAEP/8 LIMIT (NOx)			47.4 %	

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	1.880	0.02	0.32	17.22	0
CLIMB OUT	85	2.2	1.554	0.02	1.73	11.54	0
APPROACH	30	4.0	0.527	0.06	2.81	9.27	0.07
IDLE	7	26.0	0.203	0.58	16.39	4.66	0.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			727	197	5928	6374	-
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)				0.77	23.2	24.97	0.58
SIGMA (D_p/F_{00} in g/kN, or SN)				0.07	0.092	0.09	0.34
RANGE (D_p/F_{00} in g/kN, or SN)				0.70-0.83	23.11-23.29	24.88-25.06	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)