



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-8E2A1
UNIQUE ID NUMBER: 8GE111
ENGINE TYPE: TF

BYPASS RATIO: 5.13
PRESSURE RATIO (π_{oo}): 23
RATED OUTPUT (F_{oo}) (kN): 59.15

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	0.5	43.1	42.9	10.3
AS % OF ORIGINAL LIMIT	2.5 %	36.5 %	49.8 %	37.7 %
AS % OF CAEP/2 LIMIT (NOx)			62.3 %	
AS % OF CAEP/4 LIMIT (NOx)			69.1 %	
AS % OF CAEP/6 LIMIT (NOx)			73.2 %	
AS % OF CAEP/8 LIMIT (NOx)			82.1 %	

DATA STATUS

- PRE-REGULATION
x CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
- 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)
x OUT OF PRODUCTION (DATE: -)
- 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	0.644	0.02	0.64	14.61	8.01
CLIMB OUT	85	2.2	0.527	0.02	0.57	12.55	2
APPROACH	30	4.0	0.179	0.06	4.26	10.72	0
IDLE	7	26.0	0.064	0.14	18.36	4.59	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			240	19	2077	2188	-
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)				0.31	35.12	36.98	8.01
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} in g/kN, or SN)				-	-	-	-

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.1 to 98.1
TEMPERATURE (K)	284 to 292
ABS HUMIDITY (kg/kg)	0.00470 to 0.00727

FUEL

SPEC	Jet A
H/C	1.937
AROM (%)	18

MANUFACTURER: GE
TEST ORGANIZATION: CF6 Eval Engineering
TEST LOCATION: PTO Site 3B Peebles
TEST DATES: FROM 27 Jan 02 TO 28 Jan 02

REMARKS

1. Ref. GE REPORT R2001AE078
2. Engine S/N 193111
3. Data corrected per ICAO Annex 16, Vol 2, Part III, Appendix 3

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

- ('x' if complies, PR if pre-regulation)