



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

**** DATA SUPERSEDED ** SEE SHEET: 8GE108**

ENGINE IDENTIFICATION: CF34-8E5 BYPASS RATIO: 5.13
UNIQUE ID NUMBER: 6GE094 PRESSURE RATIO (π_{00}): 23.18
ENGINE TYPE: TF RATED OUTPUT (F_{00}) (kN): 59.68

REGULATORY DATA

| CHARACTERISTIC VALUE: | HC | CO | NOx | SMOKE NUMBER |
|----------------------------|-------|--------|--------|--------------|
| D_p/F_{00} (g/kN) or SN | 0.5 | 42.5 | 43.2 | 11.1 |
| AS % OF ORIGINAL LIMIT | 2.6 % | 36.0 % | 50.0 % | 40.7 % |
| AS % OF CAEP/2 LIMIT (NOx) | | | 62.5 % | |
| AS % OF CAEP/4 LIMIT (NOx) | | | 69.4 % | |
| AS % OF CAEP/6 LIMIT (NOx) | | | 73.7 % | |
| AS % OF CAEP/8 LIMIT (NOx) | | | 82.5 % | |

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_{00}) | TIME minutes | FUEL FLOW kg/s | EMISSIONS INDICES (g/kg) | | | SMOKE NUMBER |
|---|-----------------------------|--------------|----------------|--------------------------|-------|-------|--------------|
| | | | | HC | CO | NOx | |
| TAKE-OFF | 100 | 0.7 | 0.652 | 0.02 | 0.64 | 14.77 | 8.63 |
| CLIMB OUT | 85 | 2.2 | 0.533 | 0.02 | 0.57 | 12.65 | 2.64 |
| APPROACH | 30 | 4.0 | 0.180 | 0.06 | 4.23 | 10.77 | 0 |
| IDLE | 7 | 26.0 | 0.064 | 0.13 | 18.16 | 4.61 | 0 |
| LTO TOTAL FUEL (kg) or EMISSIONS (g) | | | 241 | 18 | 2065 | 2222 | - |
| 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) | | | | 0.31 | 34.62 | 37.25 | 8.63 |
| SIGMA (D_p/F_{00} in g/kN, or SN) | | | | - | - | - | - |
| RANGE (D_p/F_{00} 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 - 98.1 |
| TEMPERATURE (K) | 284 - 292 |
| ABS HUMIDITY (kg/kg) | .00470 - .00727 |

FUEL

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

MANUFACTURER: GE Aircraft Engines
TEST ORGANIZATION: Peebles Test Organisation
TEST LOCATION: Peebles, Ohio
TEST DATES: FROM 27 Jan 02 TO 28 Jan 02

REMARKS

1. GE Report R2001AE078
2. Engine S/N 193111
3. LEC combustor
4. Minor change to climb SN (2.64 to 2.24) in Issue 15

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

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