



## ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-8E5A1  
UNIQUE ID NUMBER: 8GE105  
COMBUSTOR: LEC  
ENGINE TYPE: TF

BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 24.1  
RATED THRUST ( $F_{00}$ ) (kN): 62.5

## REGULATORY DATA

\*\* DATA SUPERSEDED \*\*

SEE FOLLOWING UID FOR REVISED DATA:

01P08GE198

| CHARACTERISTIC VALUE:                        | HC  | CO   | NO <sub>x</sub> | SMOKE NUMBER |
|--|-----|------|-----------------|--------------|
| D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN | 0.4 | 39.8 | 44.9            | 17.6         |
| AS % OF ORIGINAL LIMIT                       | 2.3 | 33.7 | 50.9            | 65.2         |
| AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )      |     |      | 63.6            |              |
| AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )      |     |      | 71.1            |              |
| AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )      |     |      | 75.9            |              |
| AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )      |     |      | 85.4            |              |

## 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)

- OUT OF PRODUCTION (DATE: - )  
- OUT OF SERVICE (DATE: - )

## MEASURED DATA

| MODE   | POWER SETTING (%F <sub>00</sub> ) | TIME (minutes) | FUEL FLOW (kg/s) | HC   | CO    | NO <sub>x</sub> | SMOKE NUMBER |
|--|-----------------------------------|----------------|------------------|------|-------|-----------------|--------------|
| TAKE-OFF   | 100                               | 0.7            | 0.691            | 0.02 | 0.71  | 15.81           | 13.6         |
| CLIMB OUT  | 85                                | 2.2            | 0.563            | 0.02 | 0.57  | 13.15           | 3.5          |
| APPROACH   | 30                                | 4.0            | 0.188            | 0.06 | 4.05  | 11.06           | 0.0          |
| IDLE   | 7                                 | 26.0           | 0.066            | 0.13 | 17.30 | 4.70            | 0.0          |
| LTO TOTAL FUEL (kg) or EMISSIONS (g)                               |                                   |                | 251              | 18   | 2026  | 2419            | -            |
| NUMBER OF ENGINES  |                                   |                |                  | 1    | 1     | 1               | 1            |
| NUMBER OF TESTS  |                                   |                |                  | 3    | 3     | 3               | 3            |
| AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX) |                                   |                |                  | 0.3  | 32.4  | 38.7            | 13.6         |
| SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)             |                                   |                |                  |      |       |                 |              |
| RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)             |                                   |                |                  |      |       |                 |              |

## ACCESSORY LOADS

POWER EXTRACTION 0 (kW)  
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS  
AT - POWER SETTINGS

## ATMOSPHERIC CONDITIONS

|                      |                |
|----------------------|----------------|
| BAROMETER (kPa)      | 97.1-98.1      |
| TEMPERATURE (K)      | 284-292        |
| ABS HUMIDITY (kg/kg) | 0.0047-0.00727 |

## FUEL

|          |       |
|----------|-------|
| SPEC     | Jet A |
| H/C      | 1.94  |
| AROM (%) | 18    |

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: CF6 Eval Engineering  
TEST LOCATION: PTO Site 3B Peebles  
TEST DATES: 27/01/2002-28/01/2002

NO<sub>x</sub> REGULATION PARAGRAPH

|   |                   |
|---|-------------------|
|   | 2.3.2 c) (CAEP/4) |
|   | 2.3.2 d) (CAEP/6) |
| x | 2.3.2 e) (CAEP/8) |

## REMARKS

1. Ref. GE REPORT R2001AE078
2. Engine S/N 193111
3. Data corrected per ICAO Annex 16, Vol 2, Part III, Appendix 3
4. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
5. NO<sub>x</sub> levels in accordance with Part III, Chapter 2, 2.3.2 e)

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation,  
-' if information is not available)