# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION:        CF6-80C2B6         BYPASS RATIO:                    5.1
UNIQUE ID NUMBER:             1GE029             PRESSURE RATIO ($\pi_{oo}$):     31.6
COMBUSTOR:
ENGINE TYPE:                  TF                 RATED THRUST ($F_{oo}$) (kN):    267.2

REGULATORY DATA

| CHARACTERISTIC VALUE: | HC | CO | $NO_X$ | SMOKE NUMBER |
|---|---|---|---|---|
| $D_p/F_{oo}$ (g/kN) or SN | 14.5 | 59.7 | 50.9 | 9.1 |
| AS % OF ORIGINAL LIMIT | 73.8 | 50.6 | 49.3 | 50.6 |
| AS % OF CAEP/2 LIMIT ($NO_X$) | | | 61.7 | |
| AS % OF CAEP/4 LIMIT ($NO_X$) | | | 72.5 | |
| AS % OF CAEP/6 LIMIT ($NO_X$) | | | 81.9 | |
| AS % OF CAEP/8 LIMIT ($NO_X$) | | | 95.6 | |

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    (DATE:     -    )

MEASURED DATA

| MODE | POWER SETTING (%$F_{oo}$) | TIME (minutes) | FUEL FLOW (kg/s) | EMISSIONS INDICES (g/kg) | | | SMOKE NUMBER |
|---|---|---|---|---|---|---|---|
| | | | | HC | CO | $NO_X$ | |
| TAKE-OFF | 100 | 0.7 | 2.579 | 0.07 | 0.52 | 30.81 | 7.8 |
| CLIMB OUT | 85 | 2.2 | 2.081 | 0.08 | 0.52 | 22.94 | 5.4 |
| APPROACH | 30 | 4.0 | 0.686 | 0.20 | 1.93 | 9.11 | 2.3 |
| IDLE | 7 | 26.0 | 0.207 | 8.99 | 41.66 | 3.79 | 3.0 |
| LTO TOTAL FUEL (kg) or EMISSIONS (g) | | | 871 | 2966 | 13970 | 12362 | – |
| NUMBER OF ENGINES | | | | 2 | 2 | 2 | 2 |
| NUMBER OF TESTS | | | | 3 | 3 | 3 | 3 |
| AVERAGE $D_p/F_{oo}$ (g/kN) or AVERAGE SN (MAX) | | | | 11.1 | 52.4 | 46.3 | 7.8 |
| SIGMA ($D_p/F_{oo}$ in g/kN, or SN) | | | | 1.3 | 3.0 | 2.2 | 1.3 |
| RANGE ($D_p/F_{oo}$ in g/kN, or SN) | | | | 10.02-12.49 | 49.74-55.21 | 44.57-48.88 | 6.1-8.4 |

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

| BAROMETER (kPa) | 97.4-97.8 |
|---|---|
| TEMPERATURE (K) | 287-296 |
| ABS HUMIDITY (kg/kg) | 0.0084-0.014 |

FUEL

| SPEC | Jet A |
|---|---|
| H/C | 1.94 |
| AROM (%) | 15.3 |

MANUFACTURER:        General Electric Company
TEST ORGANIZATION:   CF6 Eval Engineering
TEST LOCATION:       Site IIIC, PTO, Peebles, Ohio
TEST DATES:          29/05/1985-03/06/1985

REMARKS

1. Ref GE Report R86AEB160.
2. Engine S/N's 690105 and 690005/2.

Compliance with Fuel Venting requirements:     -    ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)

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Check website for latest version