



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GENx-1B70/P2
UNIQUE ID NUMBER: 01P17GE210
COMBUSTOR: TAPS
ENGINE TYPE: TF
BYPASS RATIO: 8.8
PRESSURE RATIO (π_{00}): 43.9
RATED THRUST (F_{00}) (kN): 321.6

REGULATORY DATA

| CHARACTERISTIC VALUE: | HC | CO | NO _x | SMOKE NUMBER |
|---|-----|------|-----------------|--------------|
| D_p/F_{00} (g/kN) or SN | 0.8 | 20.1 | 45.5 | 0.8 |
| AS % OF ORIGINAL LIMIT | 4.0 | 17.0 | 35.6 | 4.4 |
| AS % OF CAEP/2 LIMIT (NO _x) | | | 44.5 | |
| AS % OF CAEP/4 LIMIT (NO _x) | | | 48.0 | |
| AS % OF CAEP/6 LIMIT (NO _x) | | | 52.5 | |
| AS % OF CAEP/8 LIMIT (NO _x) | | | 58.4 | |

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

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

MEASURED DATA

| MODE | POWER SETTING (% F_{00}) | TIME (minutes) | FUEL FLOW (kg/s) | HC | CO | NO _x | SMOKE NUMBER |
|---|-----------------------------|----------------|------------------|-----------|-------------|-----------------|--------------|
| TAKE-OFF | 100 | 0.7 | 2.504 | 0.02 | 0.06 | 34.77 | 0.2 |
| CLIMB OUT | 85 | 2.2 | 2.042 | 0.02 | 0.17 | 20.87 | 0.2 |
| APPROACH | 30 | 4.0 | 0.654 | 0.05 | 1.82 | 11.02 | 0.3 |
| IDLE | 7 | 26.0 | 0.213 | 0.44 | 14.78 | 4.85 | 0.1 |
| LTO TOTAL FUEL (kg) or EMISSIONS (g) | | | 865 | 162 | 5256 | 12629 | - |
| 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) | | | | 0.5 | 16.3 | 39.3 | 0.6 |
| SIGMA (D_p/F_{00} in g/kN, or SN) | | | | 0.0 | 0.0 | 0.3 | 0.3 |
| RANGE (D_p/F_{00} in g/kN, or SN) | | | | 0.47-0.54 | 16.32-16.36 | 39.02-39.52 | 0.35-0.97 |

ACCESSORY LOADS

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

AT All POWER SETTINGS
AT All POWER SETTINGS

ATMOSPHERIC CONDITIONS

| | |
|----------------------|-----------------|
| BAROMETER (kPa) | 98.1-98.5 |
| TEMPERATURE (K) | 295.1-298.8 |
| ABS HUMIDITY (kg/kg) | 0.01189-0.01439 |

FUEL

| | |
|----------|-------|
| SPEC | Jet A |
| H/C | 1.89 |
| AROM (%) | 15.4 |

MANUFACTURER: General Electric Company
TEST ORGANIZATION: General Electric Company
TEST LOCATION: PTO, Ohio
TEST DATES: 19/06/2012-21/06/2012

NO_x 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 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. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

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