



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1525G
UNIQUE ID NUMBER: 16PW110
COMBUSTOR: TALON X
ENGINE TYPE: TF

BYPASS RATIO: 11.1
PRESSURE RATIO (π_{00}): 38.7
RATED THRUST (F_{00}) (kN): 108.5

REGULATORY DATA

| CHARACTERISTIC VALUE: | HC | CO | NO _x | SMOKE NUMBER |
|--|-----|------|-----------------|--------------|
| D _p /F ₀₀ (g/kN) or SN | 0.4 | 16.3 | 39.8 | 4.1 |
| AS % OF ORIGINAL LIMIT | 2.0 | 13.8 | 33.9 | 17.7 |
| AS % OF CAEP/2 LIMIT (NO _x) | | | 42.4 | |
| AS % OF CAEP/4 LIMIT (NO _x) | | | 47.2 | |
| AS % OF CAEP/6 LIMIT (NO _x) | | | 52.2 | |
| AS % OF CAEP/8 LIMIT (NO _x) | | | 59.0 | |

DATA STATUS

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

TEST ENGINE STATUS

- 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)
x 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 | 0.790 | 0.10 | 0.00 | 28.10 | 3.4 |
| CLIMB OUT | 85 | 2.2 | 0.650 | 0.10 | 0.10 | 21.20 | 2.8 |
| APPROACH | 30 | 4.0 | 0.230 | 0.10 | 1.60 | 11.10 | 2.4 |
| IDLE | 7 | 26.0 | 0.080 | 0.10 | 13.00 | 6.10 | 2.5 |
| LTO TOTAL FUEL (kg) or EMISSIONS (g) | | | 299 | 30 | 1719 | 4125 | - |
| NUMBER OF ENGINES | | | | 3 | 3 | 3 | 3 |
| NUMBER OF TESTS | | | | 3 | 3 | 3 | 3 |
| AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX) | | | | 0.3 | 15.1 | 37.6 | 3.8 |
| SIGMA (D _p /F ₀₀ in g/kN, or SN) | | | | | | | |
| RANGE (D _p /F ₀₀ in g/kN, or SN) | | | | 0.2-0.4 | 14.6-15.5 | 36.5-38.3 | 1.7-5.7 |

ACCESSORY LOADS

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

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

| | |
|----------------------|-----------------|
| BAROMETER (kPa) | 99.2-101.4 |
| TEMPERATURE (K) | 259.5-282 |
| ABS HUMIDITY (kg/kg) | 0.00081-0.00317 |

FUEL

| | |
|----------|-----------|
| SPEC | Jet A |
| H/C | 1.9 |
| AROM (%) | 16.4-18.1 |

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: Pratt & Whitney Canada
TEST LOCATION: Mirabel Aerospace Centre - Quebec
TEST DATES: 15/01/2016-10/05/2016

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. Data from Certification Report PWA-10061
2. Certification in accordance with Part III, Chapter 2, of Amendment 8 of ICAO Annex 16 Vol. II.
3. 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)