



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1129G-JM

UNIQUE ID NUMBER: 18PW123

ENGINE TYPE: TF

BYPASS RATIO: 12.0

PRESSURE RATIO (π_{oo}): 34.0

RATED OUTPUT (F_{oo}) (kN): 130.1

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	0.5	31.8	29.3	15.7
AS % OF ORIGINAL LIMIT	3.0 %	27.0 %	27.0 %	71.0 %
AS % OF CAEP/2 LIMIT (NOx)			34.0 %	
AS % OF CAEP/4 LIMIT (NOx)			39.0 %	
AS % OF CAEP/6 LIMIT (NOx)			44.0 %	
AS % OF CAEP/8 LIMIT (NOx)			50.0 %	

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)

- OUT OF PRODUCTION

- OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING (%F _{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.880	0.02	0.21	20.98	14.25681479
CLIMB OUT	85	2.2	0.730	0.04	0.25	16.84	12.05010395
APPROACH	30	4.0	0.255	0.02	4.58	9.19	0.480934357
IDLE	7	26.0	0.080	0.36	26.52	4.98	1.094378047
LTO TOTAL FUEL (kg) or EMISSIONS (g)			318	51	3617	3571	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				9	9	9	9
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				0.45	29.35	27.2	14.25681479
SIGMA (D _p /F _{oo} in g/kN, or SN)				-	-	-	-
RANGE (D _p /F _{oo} in g/kN, or SN)				-	-	-	-

ACCESSORY LOADS

POWER EXTRACTION0(kW)AT-POWER SETTINGS

STAGE BLEED0% CORE FLOWAT-POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.8559 - 103.0230
TEMPERATURE (K)	266.2 - 298.7
ABS HUMIDITY (kg/kg)	0.000362 - 0.01437

FUEL

SPEC	Jet-A
H/C	1.86
AROM (%)	15.1% - 16.6%

MANUFACTURER: Pratt & Whitney

TEST ORGANIZATION: Pratt & Whitney

TEST LOCATION: X7 Test Stand, East Hartford, CT

TEST DATES: FROM 02 Mar 17 TO 19 Sep 17

REMARKS

1. Data from Certification Report PWA-11521, 3 engines tested, block C combustor
2. Certification in accordance with Part III, Chapter 2, of Amendment 8 of ICAO Annex 16 Vol. II.
3. NOx levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)□

If REVISED, this data supersedes databank UID

Compliance with fuel venting requirements:x ('x' if complies, PR if pre-regulation)