



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1919G BYPASS RATIO: 11.6
UNIQUE ID NUMBER: 04P20PW200 PRESSURE RATIO (π_{co}): 33.3
COMBUSTOR: TALON X, Block-C
ENGINE TYPE: TF RATED THRUST (F_{co}) (kN): 92.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{co} (g/kN) or SN	0.4	33.2	34.3	2.6
AS % OF ORIGINAL LIMIT	2.0	28.0	32.0	11.0
AS % OF CAEP/2 LIMIT (NO _x)			40.0	
AS % OF CAEP/4 LIMIT (NO _x)			47.0	
AS % OF CAEP/6 LIMIT (NO _x)			52.0	
AS % OF CAEP/8 LIMIT (NO _x)			61.0	

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

- 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	TIME	FUEL FLOW	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
	SETTING (%F _{co})	(minutes)	(kg/s)	HC	CO	NO _x	
TAKE-OFF	100	0.7	0.650	0.00	0.00	20.00	2.0
CLIMB OUT	85	2.2	0.540	0.00	0.00	16.70	1.3
APPROACH	30	4.0	0.200	0.10	3.30	9.80	0.8
IDLE	7	26.0	0.070	0.20	22.20	5.20	0.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			252	25	2508	2746	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F _{co} (g/kN) or AVERAGE SN (MAX)				0.3	27.0	29.6	2.0
SIGMA (D _p /F _{co} in g/kN, or SN)							
RANGE (D _p /F _{co} in g/kN, or SN)				0.2-0.4	26.7-27.6	29.4-29.8	1.7-2.3

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	102-103.3
TEMPERATURE (K)	272-278.1
ABS HUMIDITY (kg/kg)	0.00122-0.00221

FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	17.8-18.4

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: Mirabel Aerospace Centre - Quebec
TEST DATES: 25/03/2018-26/03/2018

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-11601
2. Block C combustor
3. Certification in accordance with Part III, Chapter 2, of Amendment 8 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)